

Access DB# 197157

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HARDCE Examiner #: _____ Date: 8/8/06
Art Unit: 1751 Phone Number 30 21318 Serial Number: 101568,638
Mail Box and Bldg/Room Location: 9A41 Results Format Preferred: (circle) PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____ SCIENTIFIC REFERENCE BR

Scl & Tech Inf. Ctr

Inventors (please provide full names): _____

AUG 8 2006

Earliest Priority Filing Date: _____ Pat. & T.M. Office

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Whatever you can find. Thanks.

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>M&H</u>	NA Sequence (#) _____	STN <input checked="" type="checkbox"/> _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>4</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic <u>(3 subsets)</u>	Dr. Link _____
Date Completed: <u>8/9/06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____



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Bib Data Sheet

CONFIRMATION NO. 2670

SERIAL NUMBER 10/568,638	FILING OR 371(c) DATE 02/16/2006 RULE	CLASS 510	GROUP ART UNIT 1751	ATTORNEY DOCKET NO. TW422941APCT
APPLICANTS Goetz Scheffler, Grenzach-Wyhlen, GERMANY; Hauke Rohwer, Lorrach, GERMANY; Rene Schlatter, Basel, SWITZERLAND; Robert Hochberg, Merzhausen, GERMANY;				
** CONTINUING DATA ***** This application is a 371 of PCT/EP04/51767 08/11/2004				
** FOREIGN APPLICATIONS ***** EUROPEAN PATENT OFFICE (EPO) 03102616.4 08/21/2003				
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 05/27/2006				
Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged		STATE OR COUNTRY GERMANY	SHEETS DRAWING 0	TOTAL CLAIMS 13
Examiner's Signature _____ Initials _____		INDEPENDENT CLAIMS 1		
ADDRESS 000324				
TITLE Optical brighteners				
FILING FEE RECEIVED 900	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit	



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

=> fil reg

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(FILE 'HOME' ENTERED AT 10:34:01 ON 09 AUG 2006)

FILE 'HCAPLUS' ENTERED AT 10:34:22 ON 09 AUG 2006
E WO2004-EP51767/APPS

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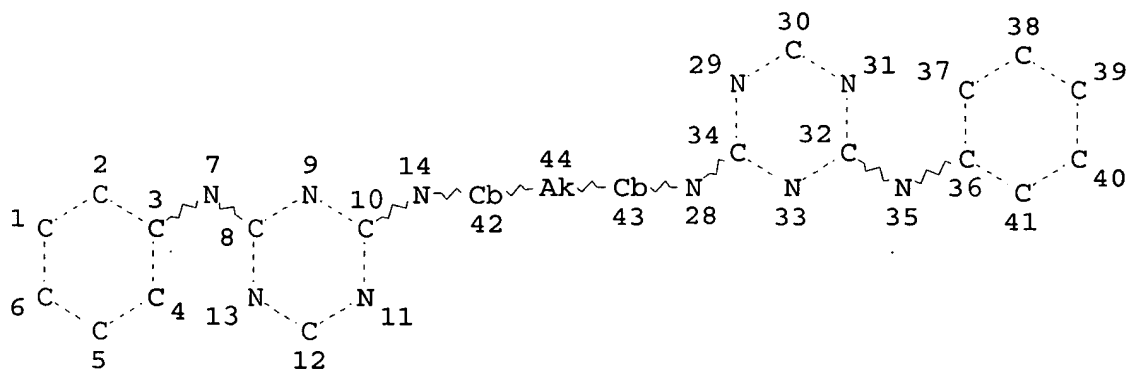
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L4 STR



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GGCAT IS UNS AT 43

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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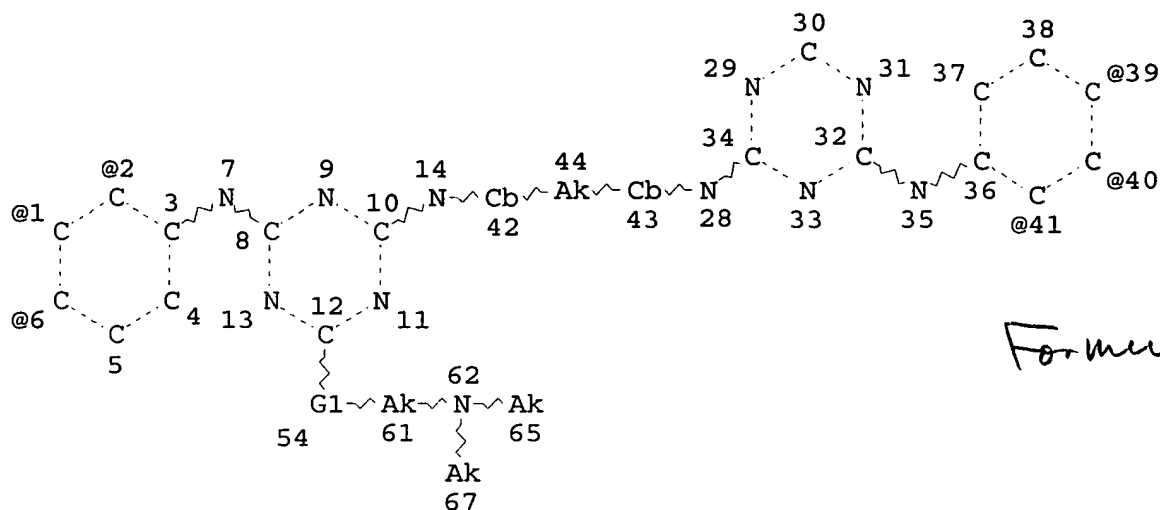
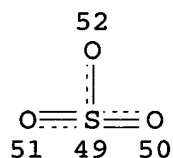
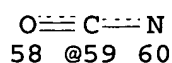
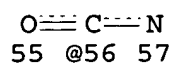
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L11 STR

L11 STR



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VPA 59-41/40/39 U

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STEREO ATTRIBUTES: NONE

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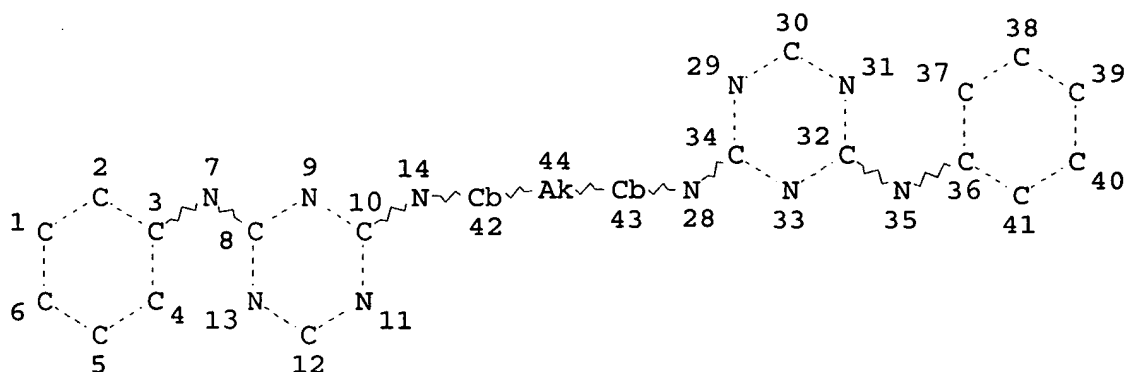
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9 ANSWERS

SEARCH TIME: 00.00.01

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L4 STR



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DEFAULT ECLEVEL IS LIMITED

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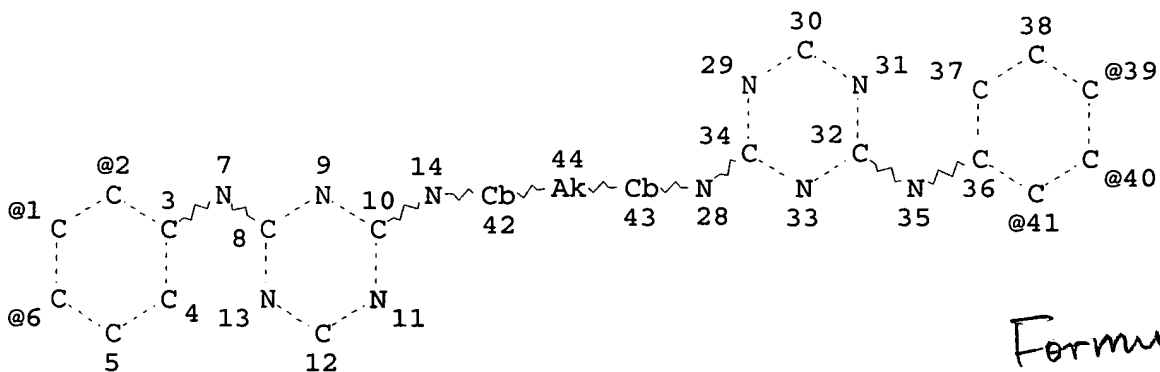
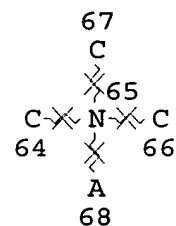
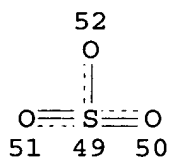
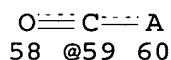
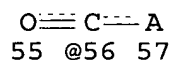
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Formula (1)

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2 ANSWERS

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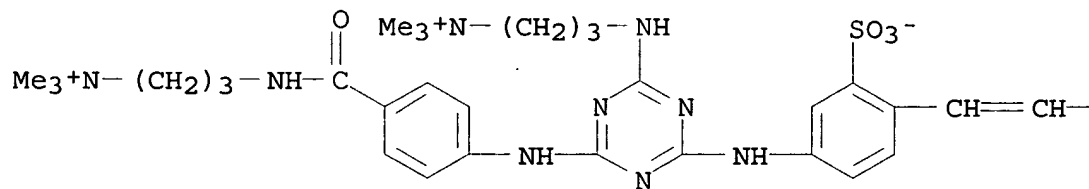

08/09/2006

ED Entered STN: 21 Mar 2005
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 FS 3D CONCORD
 MF C58 H84 N18 O8 S2
 CI COM
 SR CA

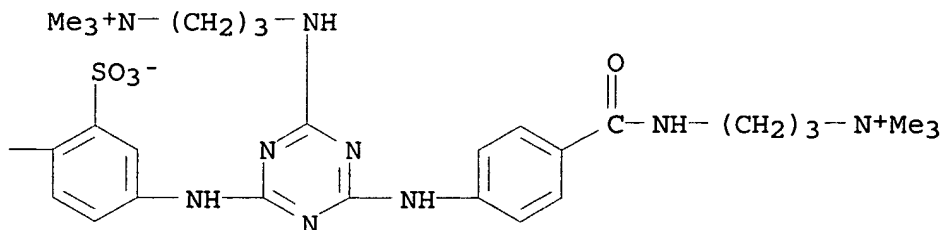
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PAGE 1-A



PAGE 1-B



=> fil hcap

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=> d 129 ibib abs hitstr hitind

L29 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:182641 HCAPLUS

DOCUMENT NUMBER: 142:263003

TITLE: Triazinylaminostilbene derivative optical brighteners for fibers and paper

INVENTOR(S): Scheffler, Goetz; Rohwer, Hauke; Schlatter, Rene; Hochberg, Robert

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

The current Application

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005019189	A1	20050303	WO 2004-EP51767	20040811
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004266851	A1	20050303	AU 2004-266851	20040811
EP 1656356	A1	20060517	EP 2004-766470	20040811
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
PRIORITY APPLN. INFO.:			EP 2003-102616	A
				20030821
			WO 2004-EP51767	W
				20040811

OTHER SOURCE(S): MARPAT 142:263003

AB Bis(triazinylamino)stilbenes are suitable as UV absorbers and fluorescent whiteners for textile materials, such as fibers and paper, and also bring about an increase in the treated textile material.

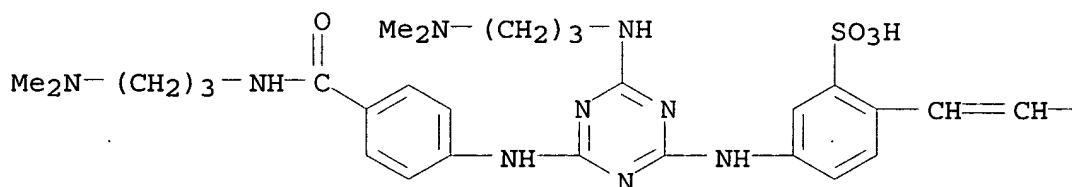
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845890-62-2P 845890-63-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of triazinylaminostilbene deriv. optical brighteners for fibers and paper)

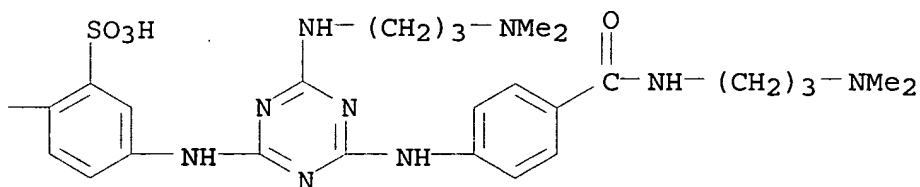
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PAGE 1-A



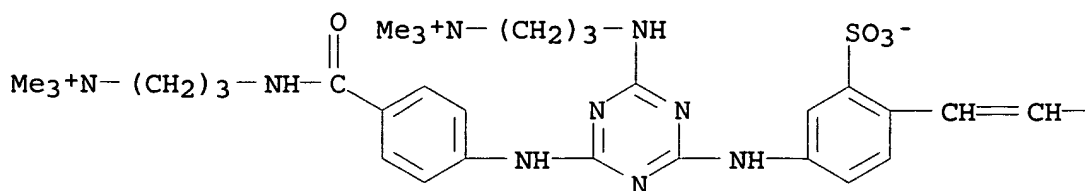
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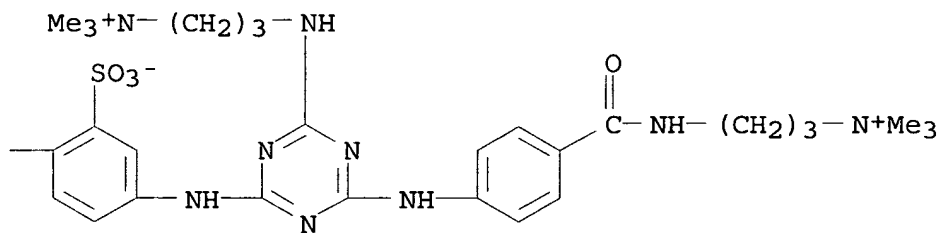
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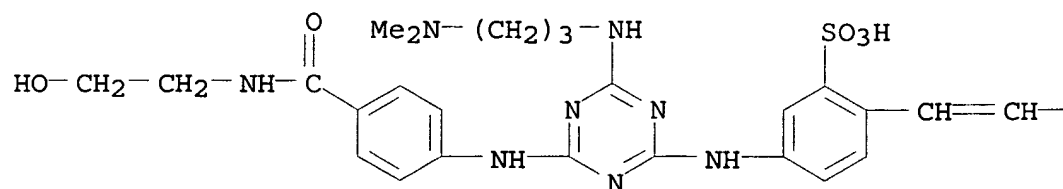
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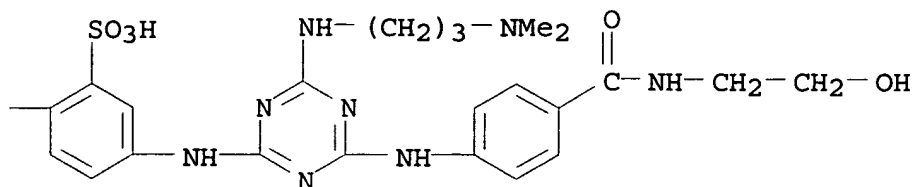


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PAGE 1-A



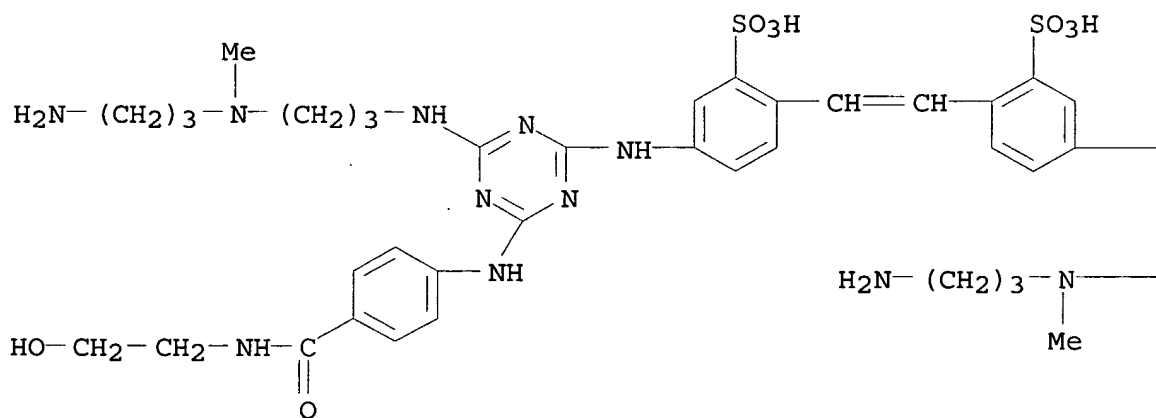
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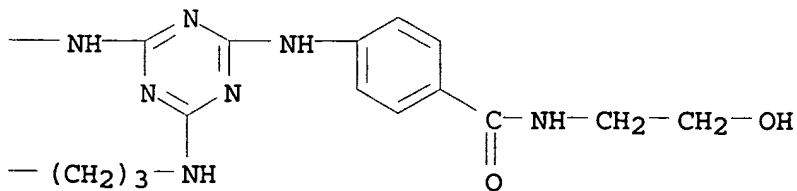
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PAGE 1-A



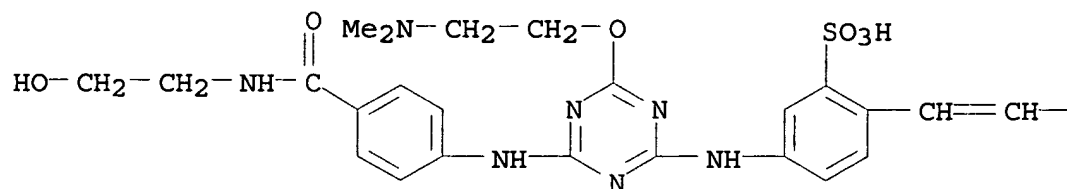
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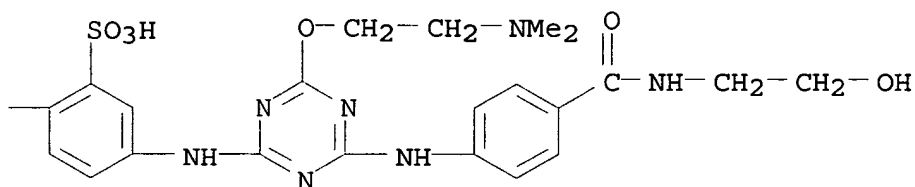
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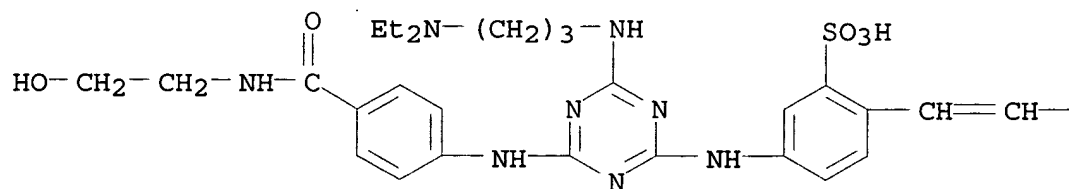
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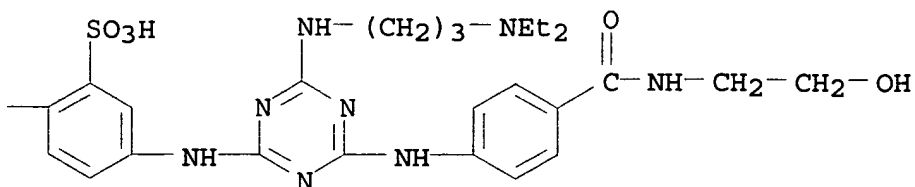
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PAGE 1-A



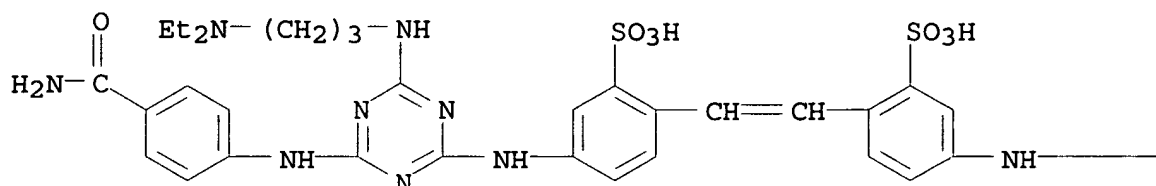
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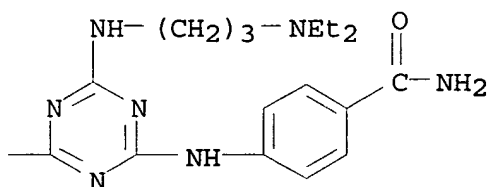
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PAGE 1-A



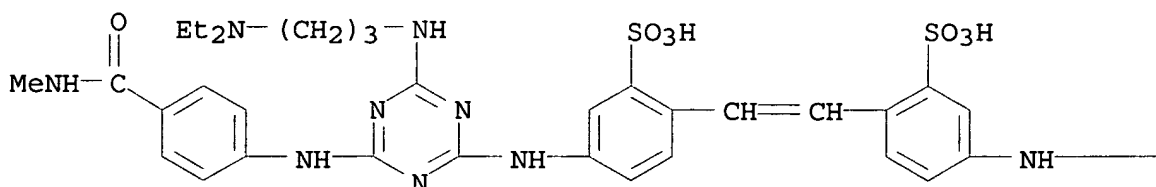
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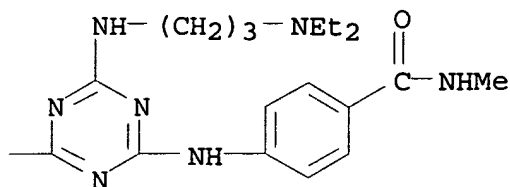
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PAGE 1-A



PAGE 1-B



IC ICM C07D251-70
ICS C08K005-3492
CC 40-9 (Textiles and Fibers)
Section cross-reference(s): 43
IT 845890-46-2P 845890-47-3P 845890-48-4P
845890-49-5P 845890-50-8P 845890-52-0P 845890-53-1P
845890-54-2P 845890-56-4P 845890-57-5P 845890-58-6P
845890-59-7P 845890-60-0P 845890-61-1P
845890-62-2P 845890-63-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of triazinylaminostilbene deriv. optical brighteners for fibers and paper)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l35 ibib abs hitstr hitind 1-12

L35 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:410059 HCAPLUS
DOCUMENT NUMBER: 144:452211
TITLE: Amphoteric 4-4'-bis(triazinylamino) stilbene-2, 2'-disulfonic acid derivatives as optical brighteners for paper
INVENTOR(S): Scheffler, Goetz; Schlatter, Rene
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006045691	A1	20060504	WO 2005-EP55122	20051010

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

EP 2004-105184

A

200410

20

AB The present invention provides 4,4'-bis(triazinylamino)stilbene-2,2'-disulfonic acid derivs. and compns., a process for their prepn., aq. formulations thereof, their use as an optical brightener for paper and to paper treated with these derivs.

IT 885476-06-2P 885476-07-3P 885476-08-4P

885476-09-5P 885476-10-8P 885476-11-9P

885476-12-0P 885476-13-1P

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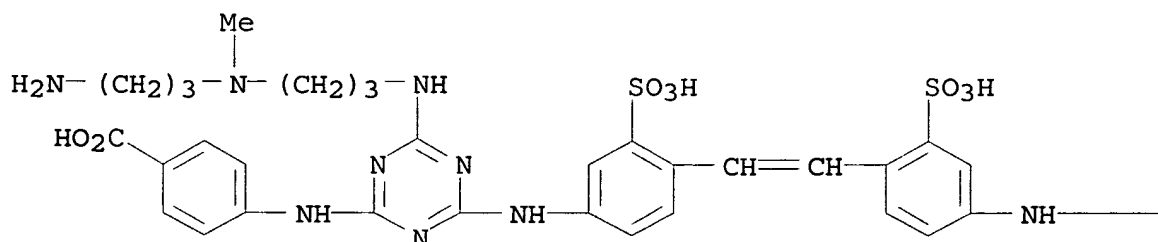
PREP (Preparation); USES (Uses)

(amphoteric 4-4'-bis(triazinylamino) stilbene-2, 2'-disulfonic acid derivs. as optical brighteners for paper)

RN 885476-06-2 HCAPLUS

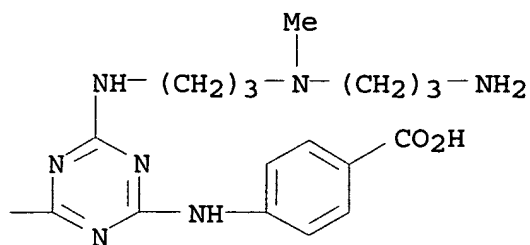
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PAGE 1-A



● 2 Na

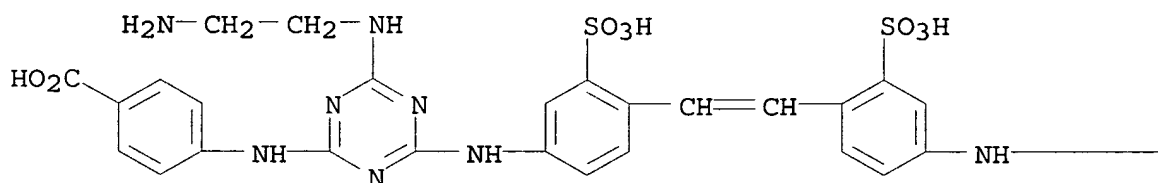
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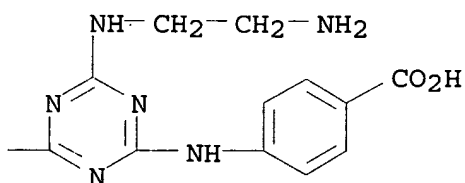
CN Benzoic acid, 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[(2-aminoethyl)amino]-1,3,5-triazine-4,2-diyl]]imino]bis-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

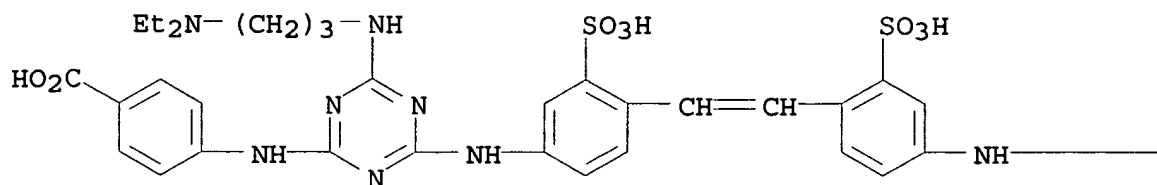
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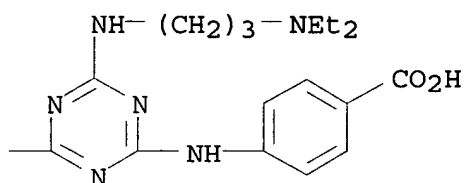
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PAGE 1-A



●2 Na

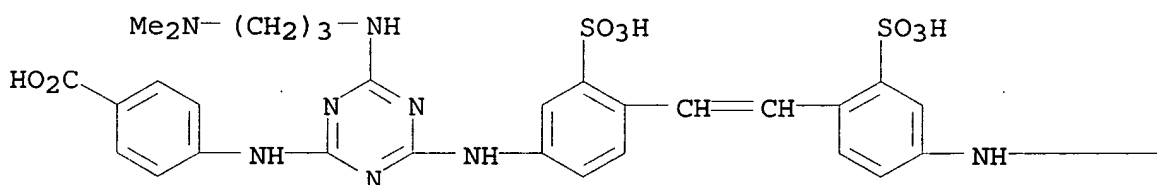
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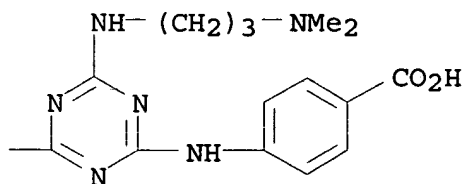
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PAGE 1-A



●2 Na

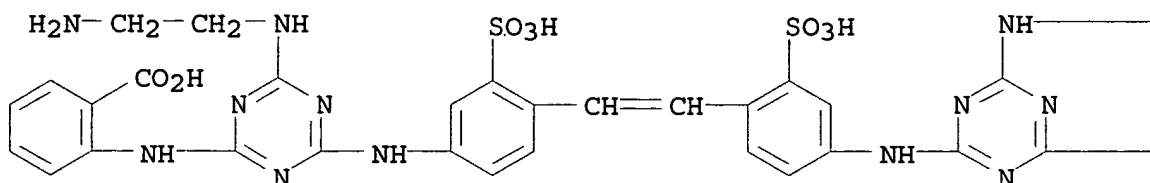
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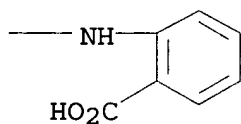
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salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

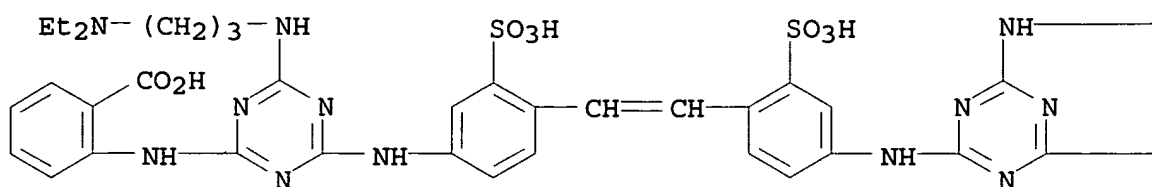
PAGE 1-B

— CH₂— CH₂— NH₂

RN 885476-11-9 HCAPLUS

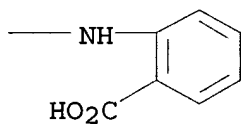
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disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

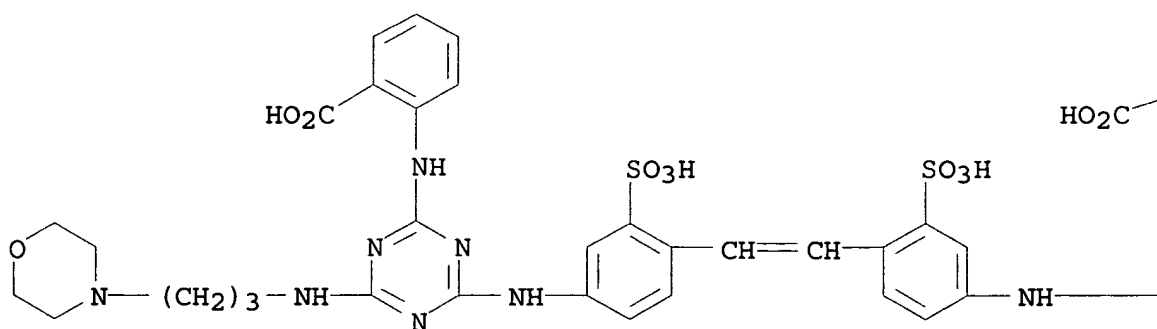
PAGE 1-B

— (CH₂)₃—NEt₂

RN 885476-12-0 HCAPLUS

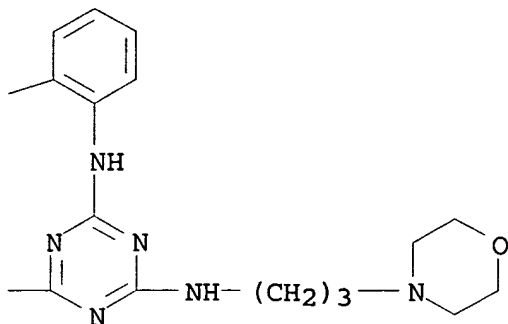
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[[3-(4-morpholinyl)propyl]amino]-1,3,5-triazine-4,2-diyl]imino]]bis-
, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B

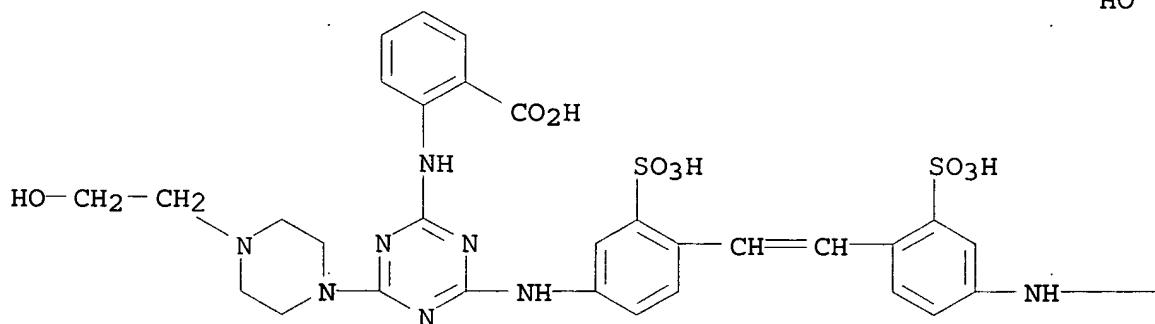


RN 885476-13-1 HCAPLUS

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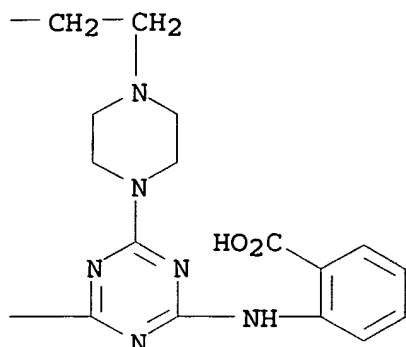
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● 2 Na

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CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 41

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885476-07-3P 885476-08-4P 885476-09-5P
885476-10-8P 885476-11-9P 885476-12-0P
885476-13-1P 885476-14-2P 885476-15-3P 885476-16-4P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)
(amphoteric 4-4'-bis(triazinylamino) stilbene-2, 2'-disulfonic
acid derivs. as optical brighteners for paper)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

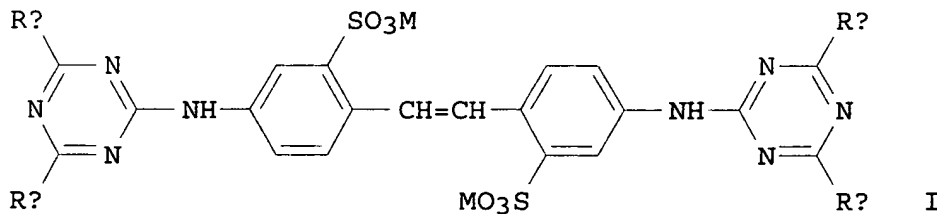
L35 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:466333 HCAPLUS
DOCUMENT NUMBER: 129:123760
TITLE: Preparation of triazinylaminostilbenes as
ultra-violet absorbing agents for textile fibers
INVENTOR(S): Eckhardt, Claude; Metzger, Georges; Reinehr,
Dieter; Sauter, Hanspeter; Dubini, Mario
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 850934	A1	19980701	EP 1997-810986	19971216
EP 850934	B1	20040310		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO

GB 2320714	A1	19980701	GB 1997-25501	199712 03
ES 2214601	T3	20040916	ES 1997-810986	199712 16
ZA 9711567	A	19980624	ZA 1997-11567	199712 23
AU 9749256	A1	19980625	AU 1997-49256	199712 23
AU 739556 CN 1191861	B2 A	20011018 19980902	CN 1997-107278	199712 23
CN 1118461 BR 9705635	B A	20030820 19990518	BR 1997-5635	199712 23
US 5945396	A	19990831	US 1997-996895	199712 23
JP 10182622	A2	19980707	JP 1997-354922	199712 24
PRIORITY APPLN. INFO.:			GB 1996-26851	A 199612 24

OTHER SOURCE(S): MARPAT 129:123760
GI



AB The present invention provides a compd. having the formula [I; in which each Rd is the same or different and each is NH-Z-N(Ra)(Rb) or N-[Z-N(Ra)(Rb)]₂ in which Z is C2-14 alkylene or optionally substituted arylene, Ra and Rb are the same or different and each is

C1-12 alkyl, or Ra and Rb, together with the nitrogen atom to which they are each attached, form a morpholino, piperidino or piperazino ring; each Rc is the same or different and is NH₂, NH(C1-4 alkyl), N(C1-4 alkyl)₂, N(CH₂CH₂OH)₂, O-C1-4 alkyl, p-(MO₂C)C₆H₄NH, (MO₃S)C₆H₄NH, or morpholino and M is hydrogen, an alkali metal atom, ammonium or a cation formed from an amine] or a quaternized form thereof. The present invention also relates to a compn. for the treatment of textiles, in particular to a compn. contg. the new ultra-violet absorbing agents; and to a method for the improvement of both the sun protection factor (UPF) and the whiteness of textile fiber material, comprising treating the material with the compn. according to the present invention. Thus, I (Rd = Cl, Rc = NH₂, M = Na) was heated with 3-dimethylamino-1-propylamine in an oil bath held at 90° to give I [Rd = NH(CH₂)₃NMe₂, Rc = NH₂, M = Na] (II). A rinse cycle softener base compn. contg. 2.7% II, distearyldimethylammonium chloride, fatty alc. ethoxylate, and deionized water was prepd. The latter compn. improved the Ganz whiteness and UPF of a cotton fabric.

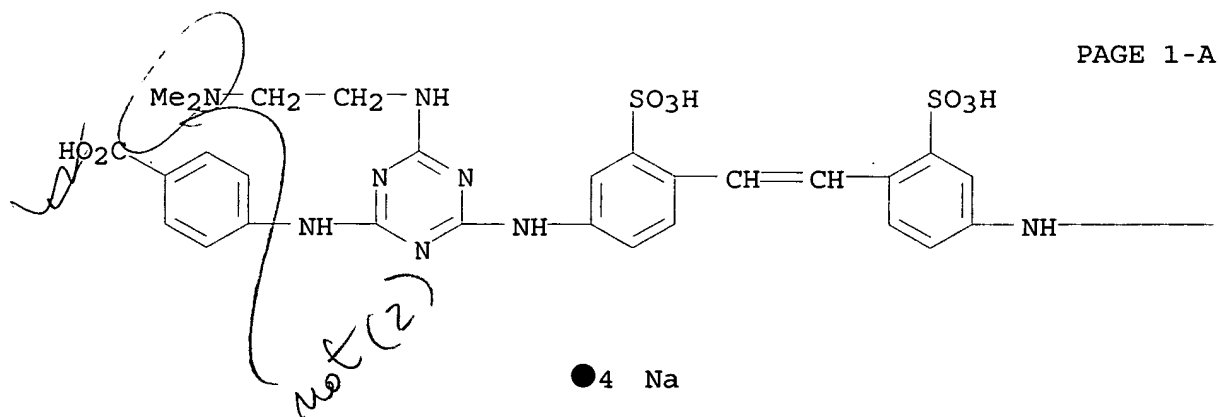
IT 210101-86-3P

RL: IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of triazinylaminostilbenes as ultra-violet absorbing agents for textile fibers)

RN 210101-86-3 HCAPLUS

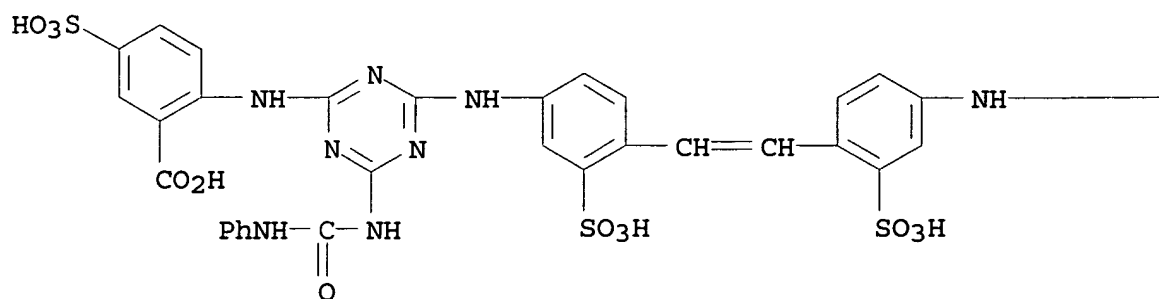
CN Benzoic acid, 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[2-(dimethylamino)ethyl]amino]-1,3,5-triazine-4,2-diyl]imino]]bis-, tetrasodium salt (9CI) (CA INDEX NAME)



IC ICM C07D251-54
ICS D06M013-355
CC 40-7 (Textiles and Fibers)
IT 210101-78-3P 210101-79-4P 210101-81-8P 210101-82-9P
210101-83-0P 210101-84-1P 210101-85-2P 210101-86-3P
RL: IMF (Industrial manufacture); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of triazinylaminostilbenes as ultra-violet absorbing agents for textile fibers)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

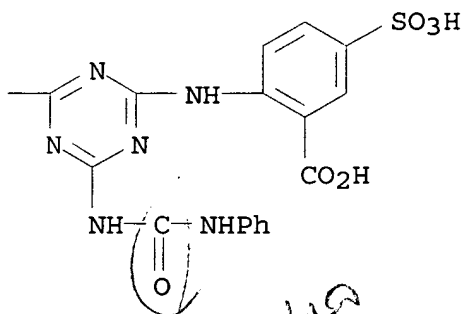
L35 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:20729 HCAPLUS
DOCUMENT NUMBER: 104:20729
TITLE: Synthesis of 4,4'-bis-[-4-(phenylurea)-6-(carboxysulfoanilino)-s-triazine-2-ylamino]-stilbene-2,2'-disulfonic acid as fluorescent brightening agent
AUTHOR(S): Desai, K. R.; Vashi, D. M.
CORPORATE SOURCE: Dep. Chem., South Gujarat Univ., Surat, 395 007, India
SOURCE: Journal of the Institution of Chemists (India) (1985), 57(2), 53-4
CODEN: JOICA7; ISSN: 0020-3254
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Derivs. of the title fluorescent brightener, useful for whitening nylon fabrics, were prepd. by condensing 4,4'-diaminostilbene-2,2'-disulfonic acid [81-11-8], with cyanuric chloride [108-77-0], 5-sulfoanthranilic acid [3577-63-7], and phenylurea derivs. The m-tolylurea deriv. [87570-80-7] had the best whitening effect on nylon, and the p-nitrophenylurea deriv. [87570-83-0] had the lowest effect.
IT 87570-78-3 87570-79-4 87570-80-7
87570-81-8 87570-82-9 87570-83-0
87570-84-1 87570-85-2 87570-86-3
87588-72-5
RL: USES (Uses)
(fluorescent brighteners, for nylon fabrics, prepn. of)
RN 87570-78-3 HCAPLUS
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-[[(phenylamino)carbonyl]amino]-1,3,5-triazine-4,2-diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

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●4 Na

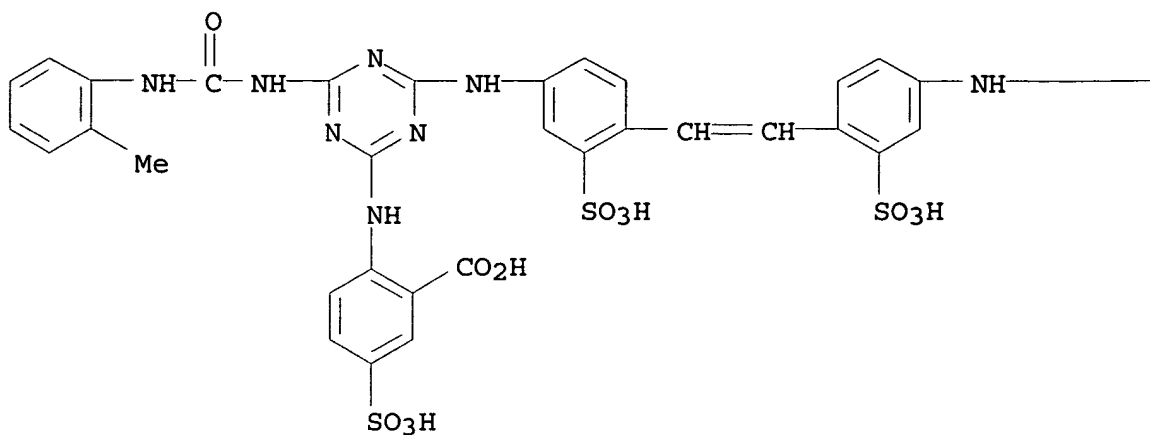
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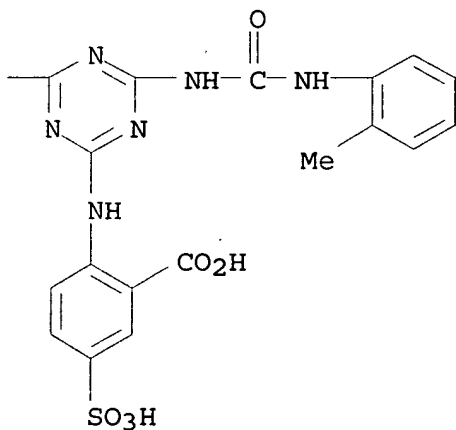
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
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● 4 Na

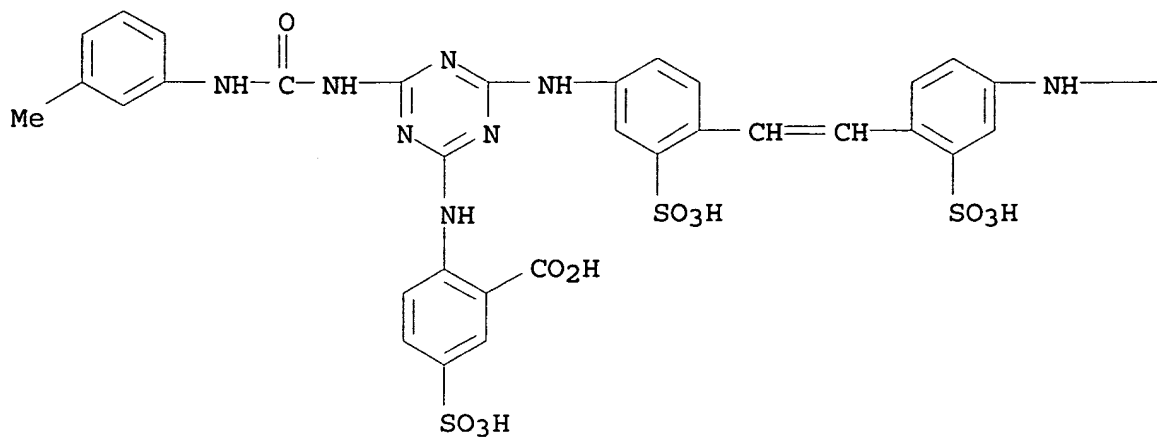
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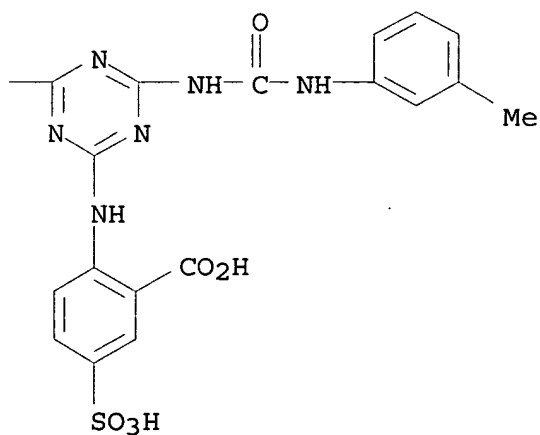
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● 4 Na

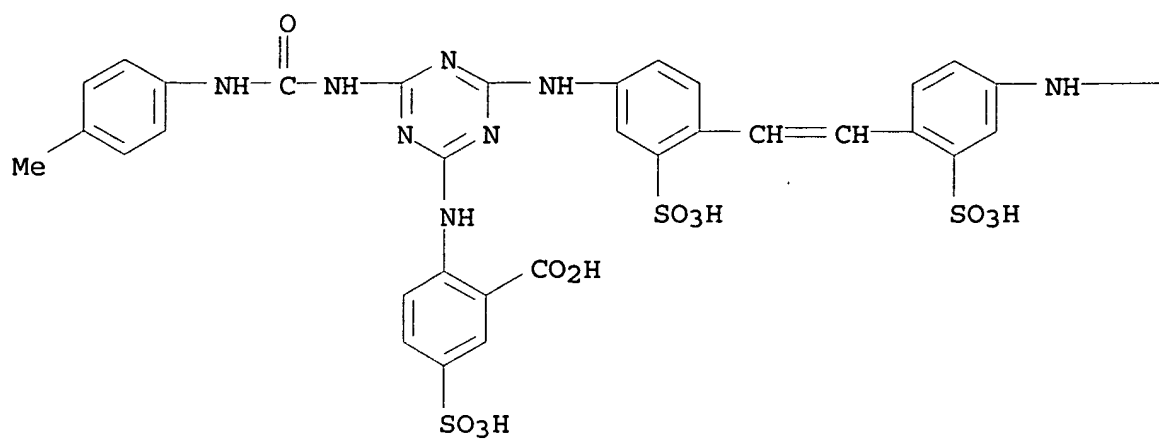
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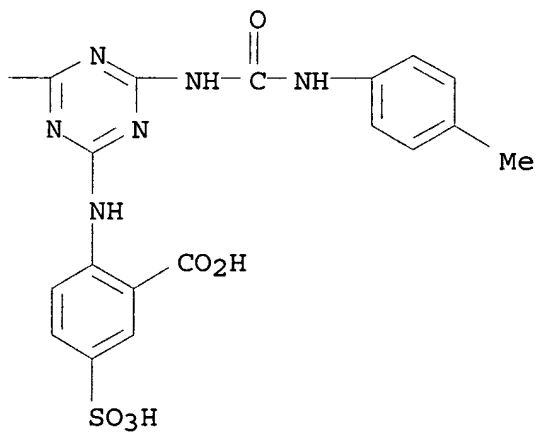
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● 4 Na

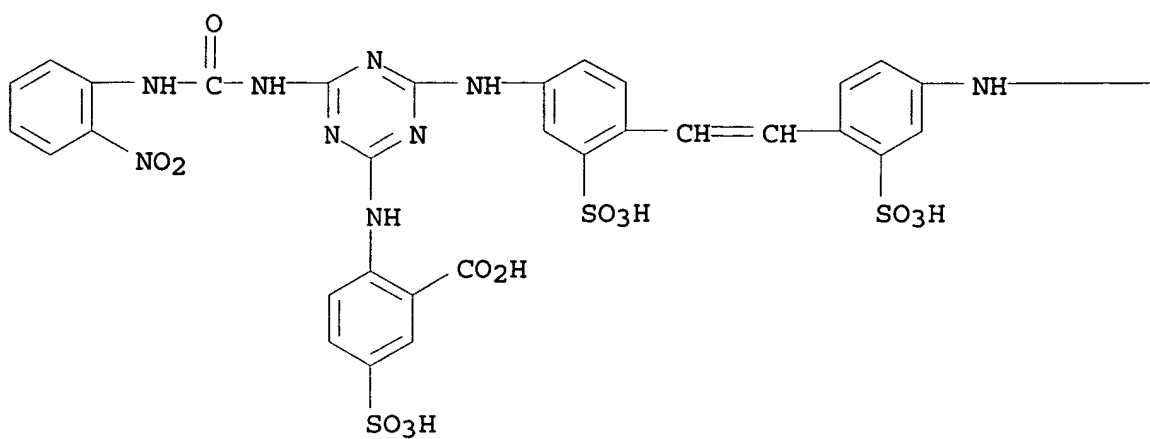
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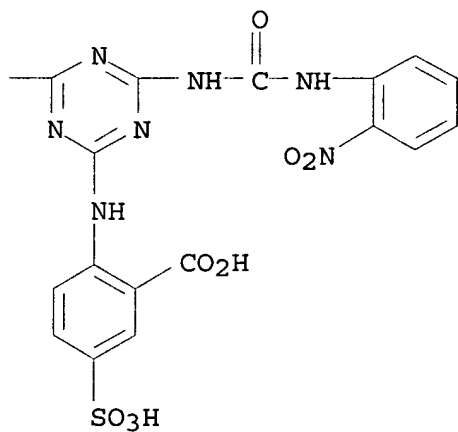
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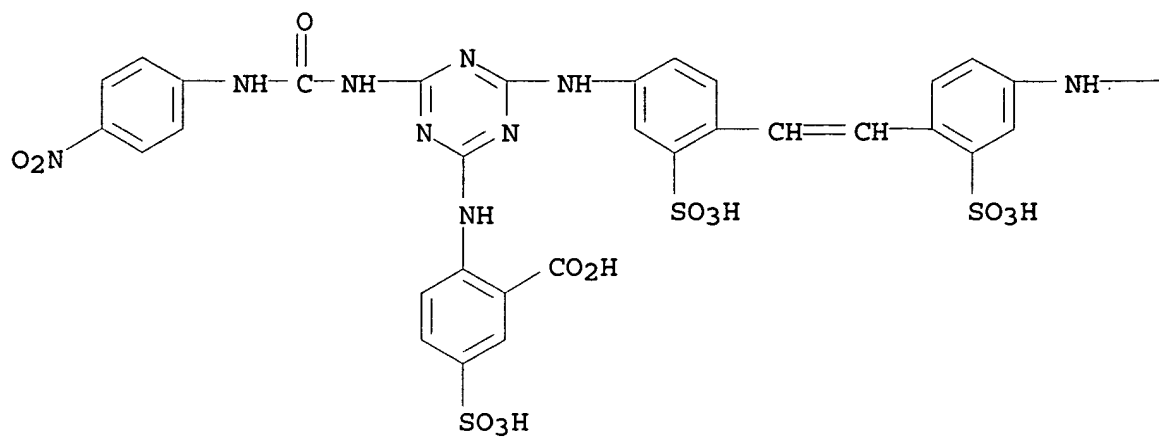
● 4 Na

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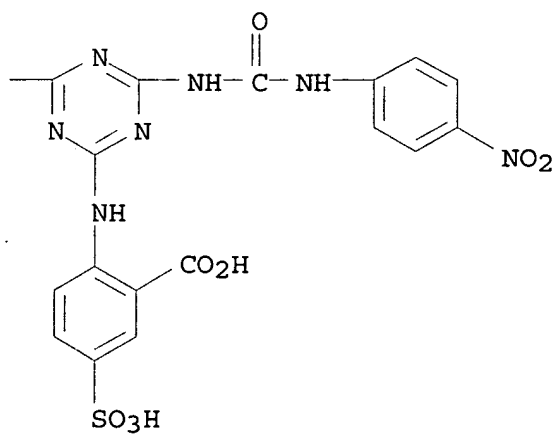
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● 4 Na

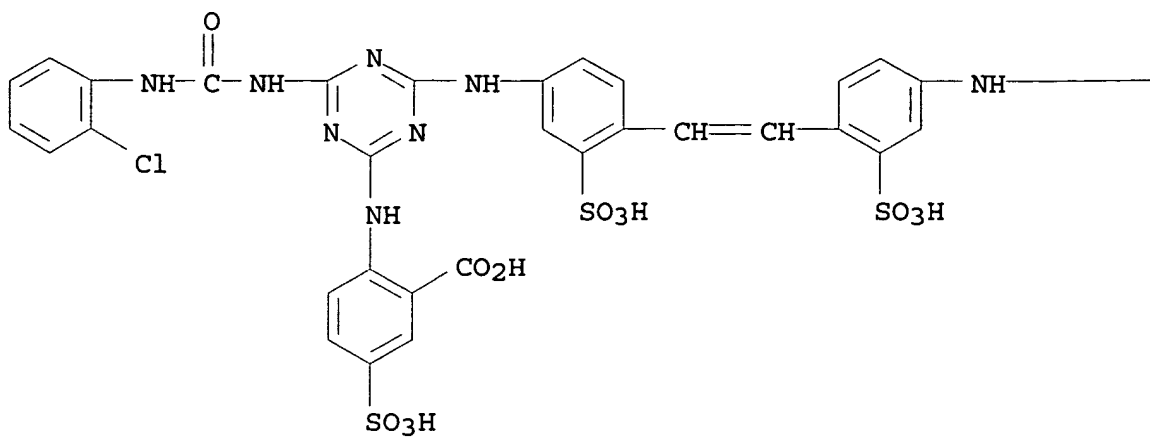
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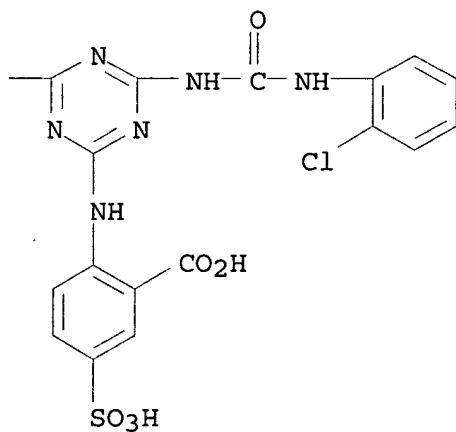
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● 4 Na

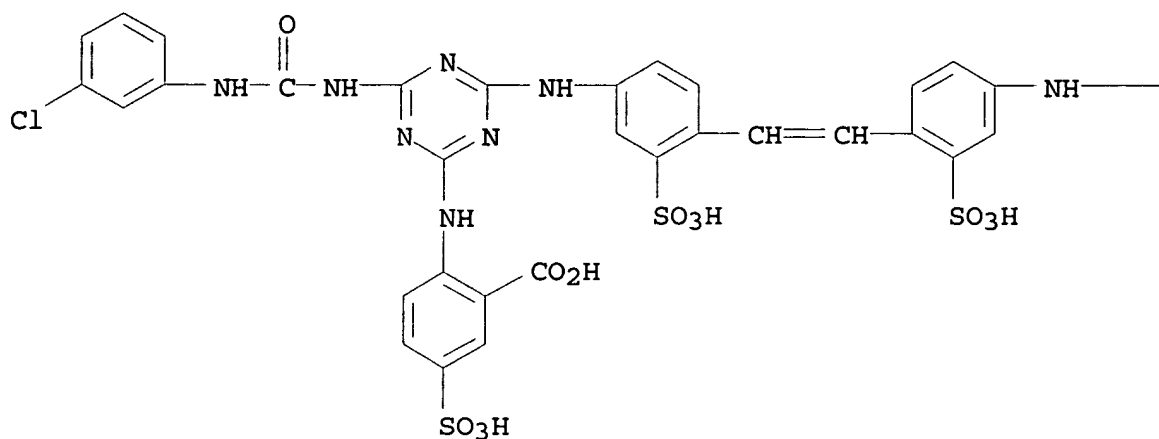
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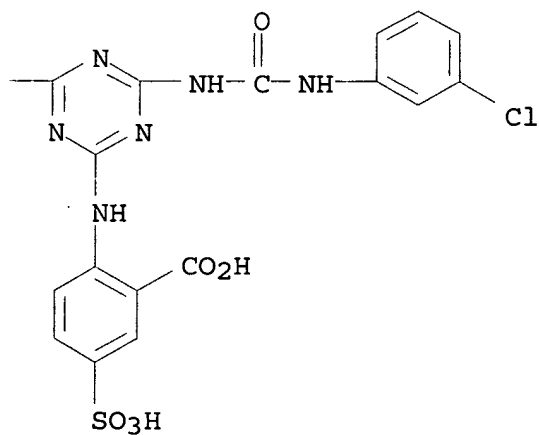
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● 4 Na

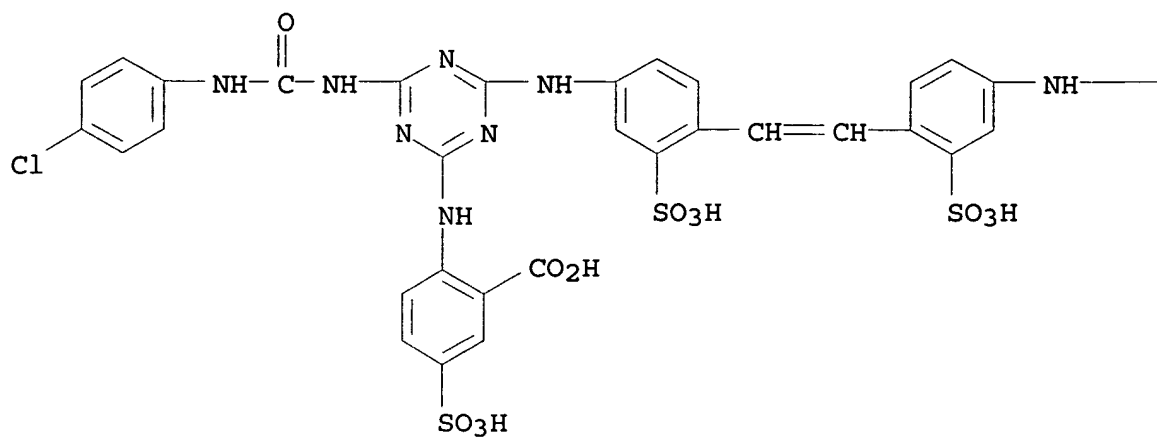
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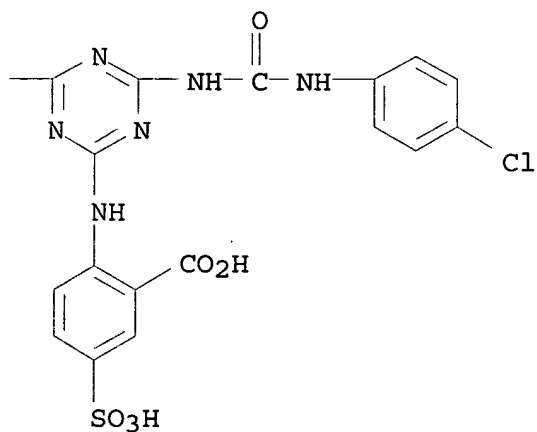
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●4 Na

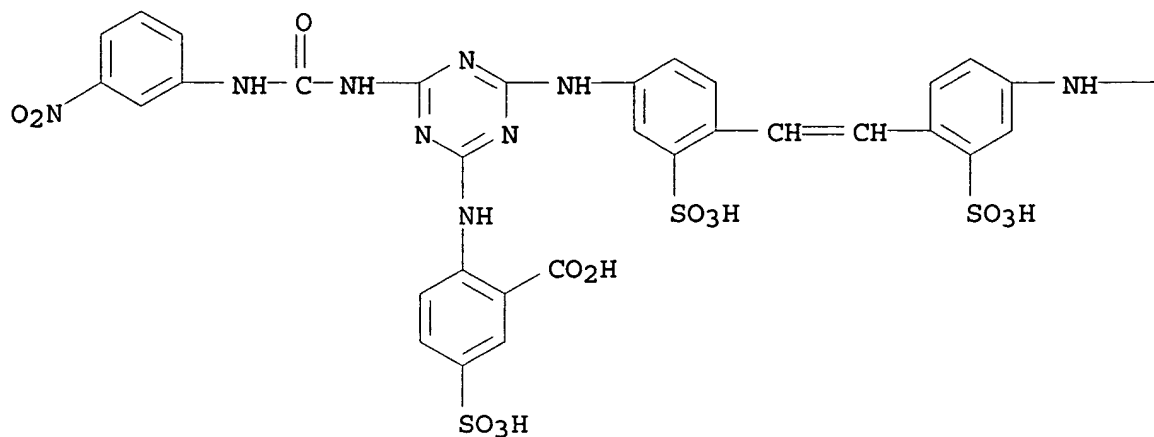
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RN 87588-72-5 HCAPLUS

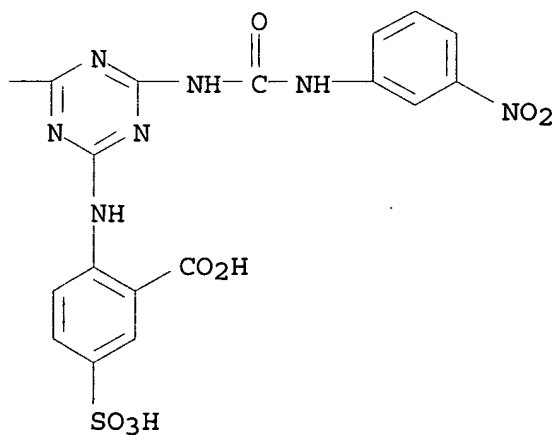
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[3-nitrophenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

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●4 Na

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CC 41-10 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)

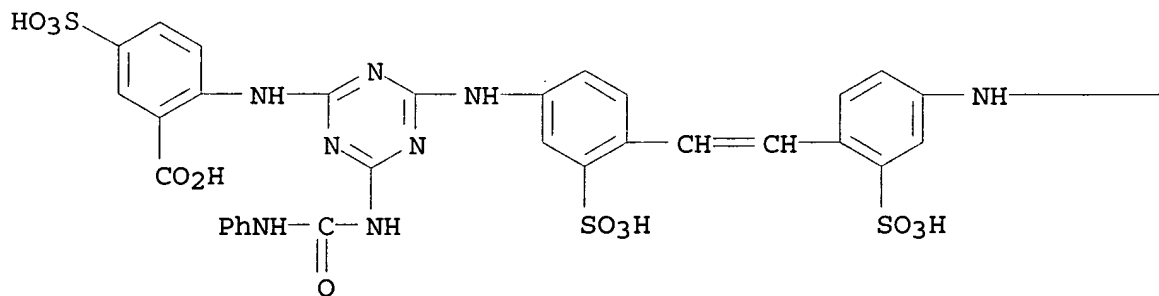
IT 87570-78-3 87570-79-4 87570-80-7
87570-81-8 87570-82-9 87570-83-0
87570-84-1 87570-85-2 87570-86-3
87588-72-5

RL: USES (Uses)

(fluorescent brighteners, for nylon fabrics, prepn. of)

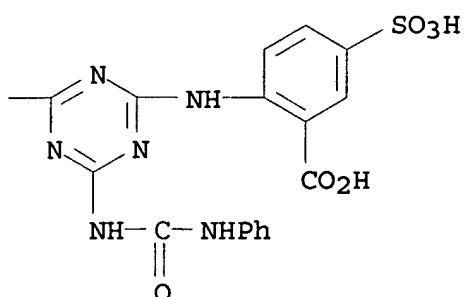
L35 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1983:577485 HCAPLUS
 DOCUMENT NUMBER: 99:177485
 TITLE: Thin layer chromatography of some modern optical
 whitening agents
 AUTHOR(S): Desai, K. R.; Vashi, D. M.
 CORPORATE SOURCE: Dep. Chem., South Gujarat Univ., Surat, 395 007,
 India
 SOURCE: Journal of the Institution of Chemists (India)
 (1983), 55(3), 111-12
 CODEN: JOICA7; ISSN: 0020-3254
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A thin-layer chromatog. method for sepn. and identification of
 stilbene-type optical whiteners is described. Silica gel H is used
 as the adsorbent and a 40:10:30:20 BuOH-EtOH-pyridine-NH₄OH or
 11:7:1:1 CHCl₃-MeOH-NH₄OH-H₂O mixt. as the developing solvent. R_f
 Values are given for 10 different whiteners.
 IT 87570-78-3 87570-79-4 87570-80-7
 87570-81-8 87570-82-9 87570-83-0
 87570-84-1 87570-85-2 87570-86-3
 87588-72-5
 RL: ANT (Analyte); ANST (Analytical study)
 (thin-layer chromatog. of)
 RN 87570-78-3 HCAPLUS
 CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[(phenylamino)carbonyl]amino]-1,3,5-triazine-4,2-diyl]imino]]bis[5-
 sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

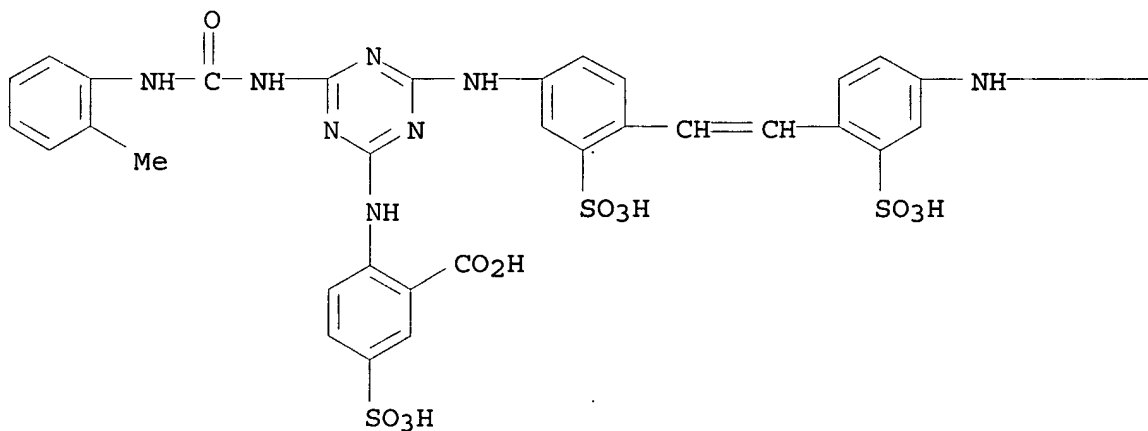
PAGE 1-B



RN 87570-79-4 HCAPLUS

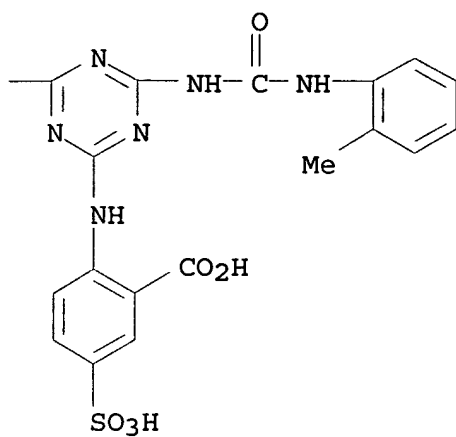
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[2-methylphenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

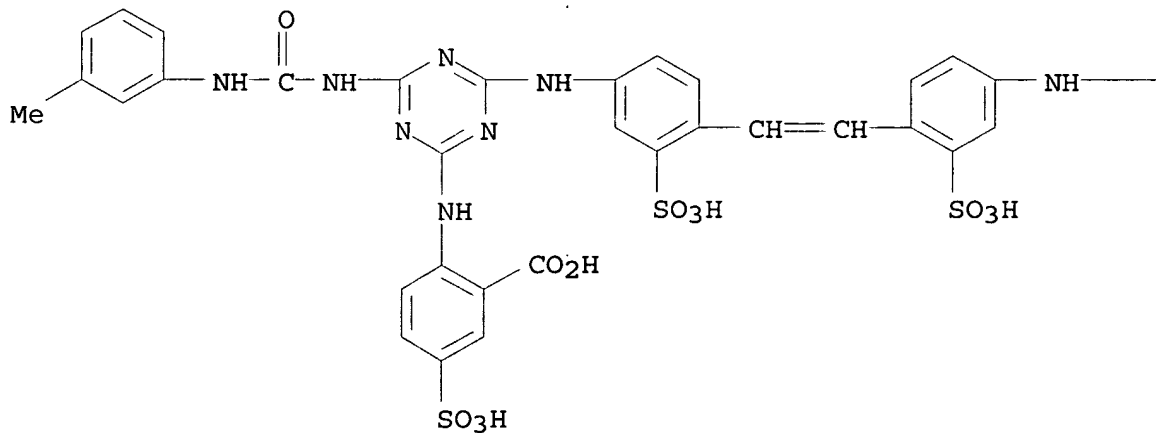
PAGE 1-B



RN 87570-80-7 HCAPLUS

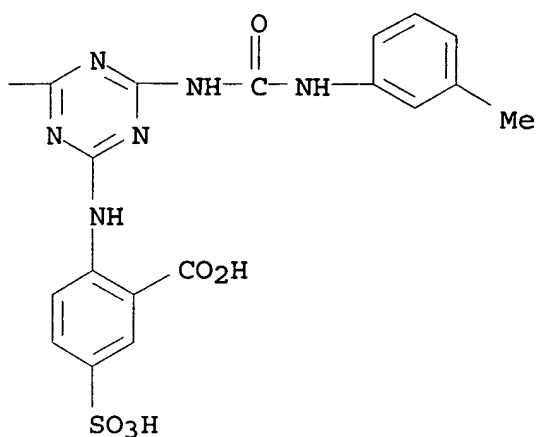
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[3-methylphenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

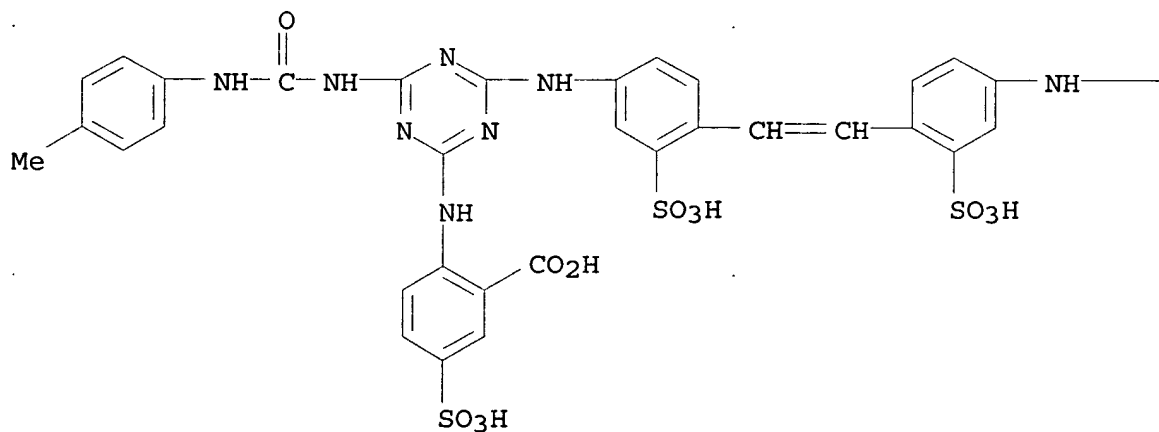
PAGE 1-B



RN 87570-81-8 HCAPLUS

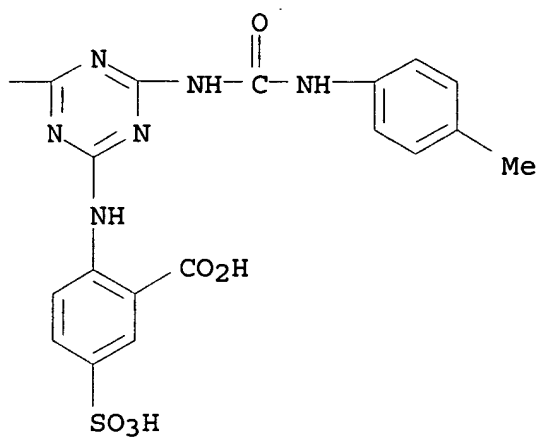
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[4-methylphenyl]amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

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●4 Na

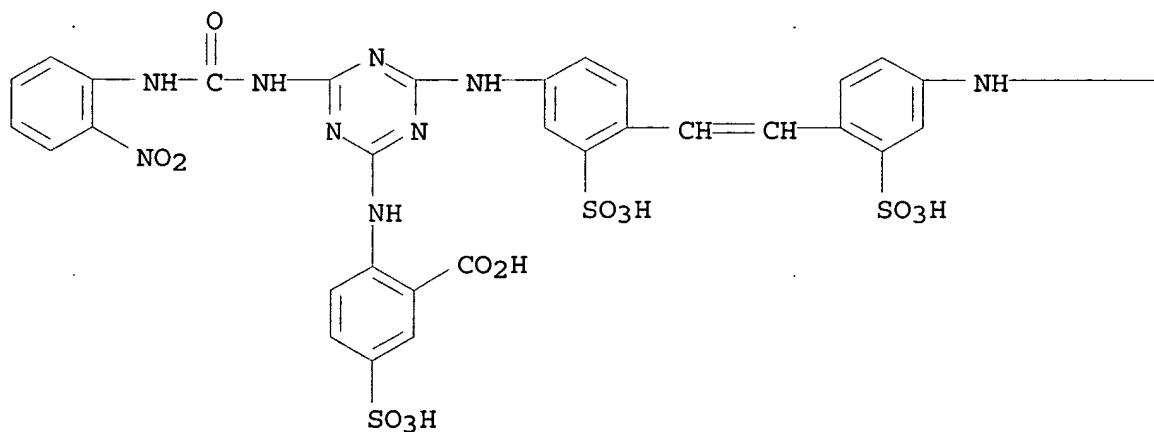
PAGE 1-B



RN 87570-82-9 HCAPLUS

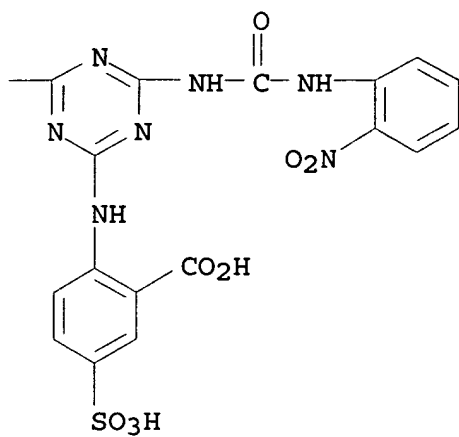
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[2-nitrophenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

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●4 Na

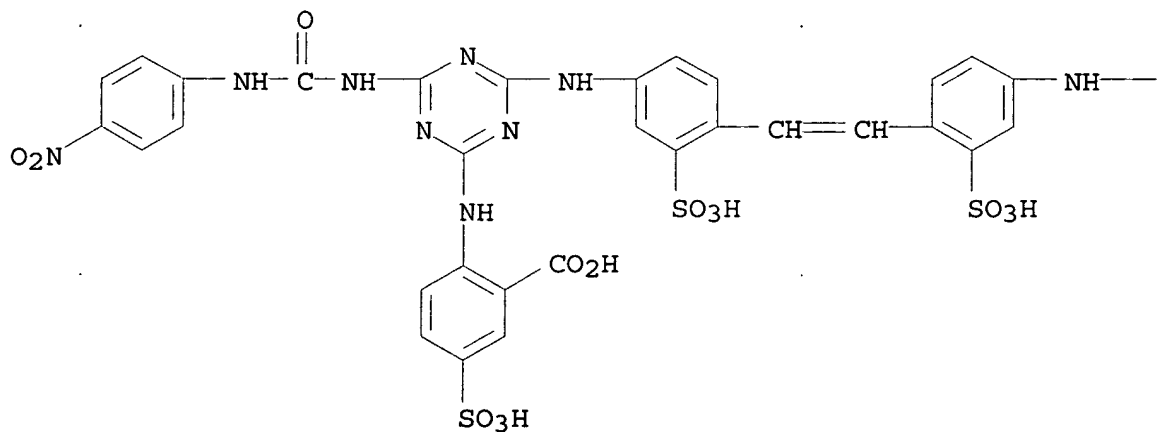
PAGE 1-B



RN 87570-83-0 HCAPLUS

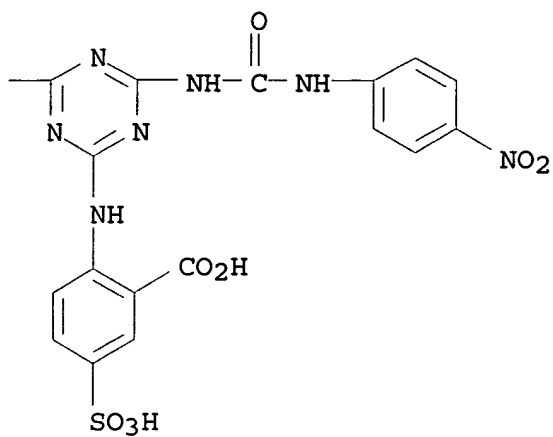
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[4-nitrophenyl]amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

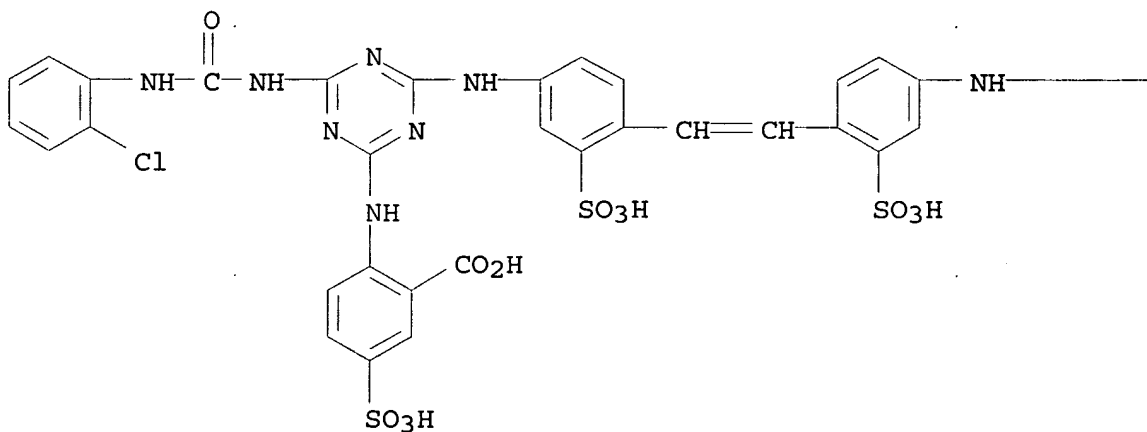
PAGE 1-B



RN 87570-84-1 HCAPLUS

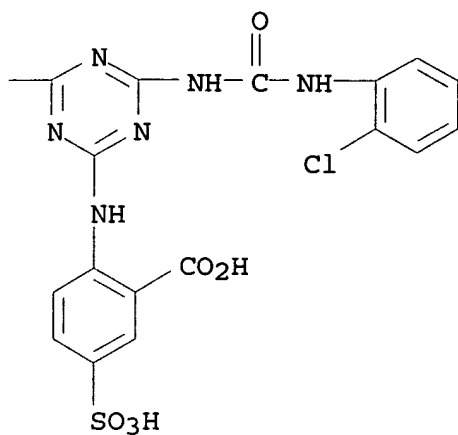
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[2-chlorophenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

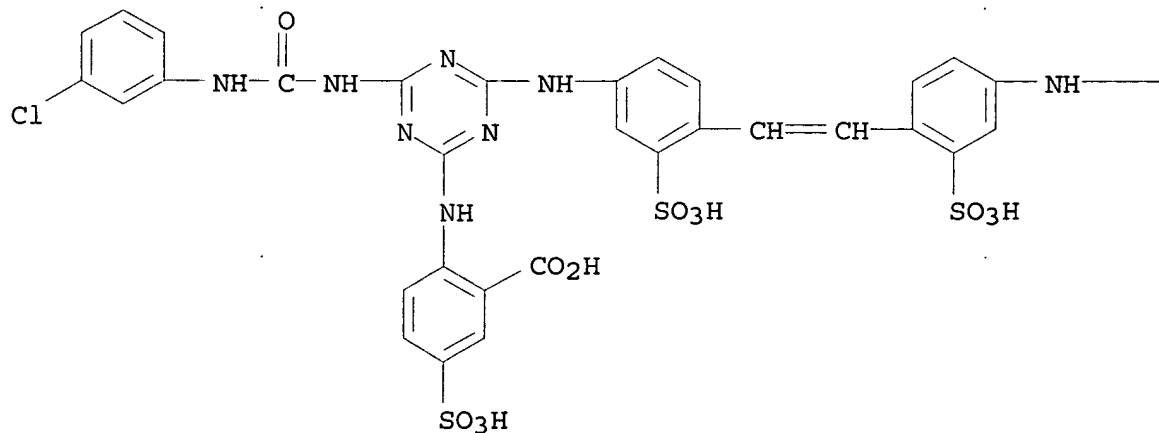
PAGE 1-B



RN 87570-85-2 HCAPLUS

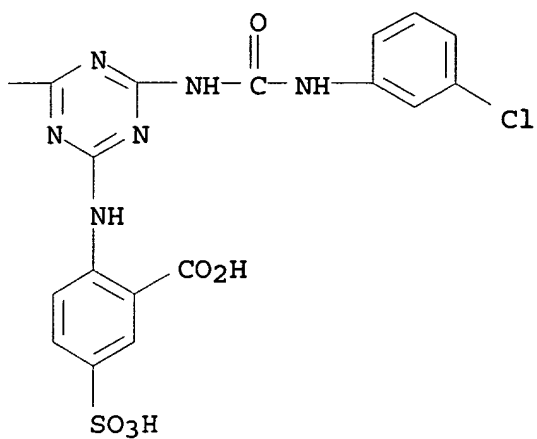
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[3-chlorophenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

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●4 Na

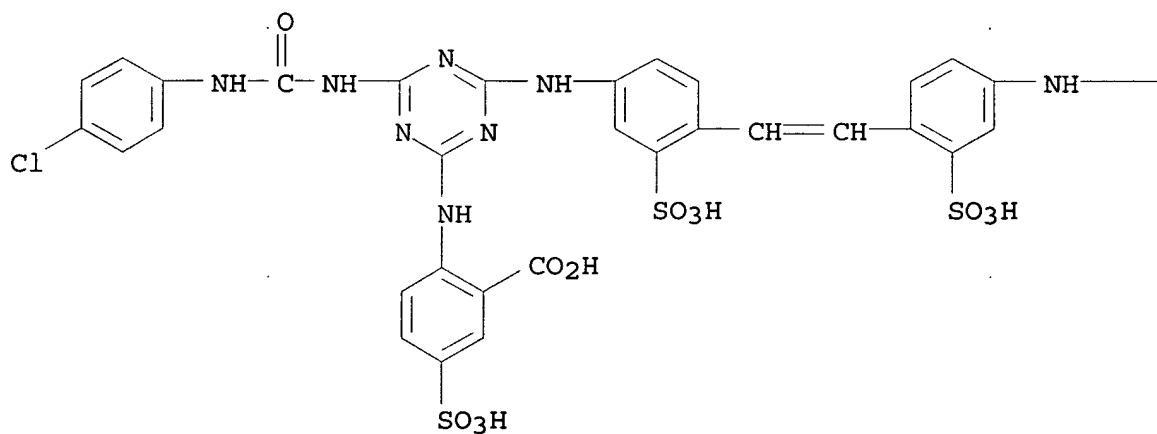
PAGE 1-B



RN 87570-86-3 HCAPLUS

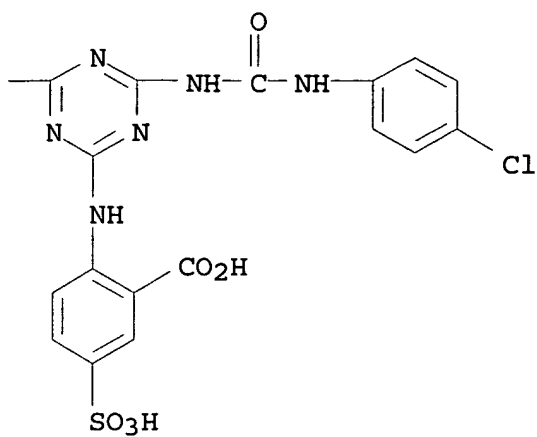
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[4-chlorophenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

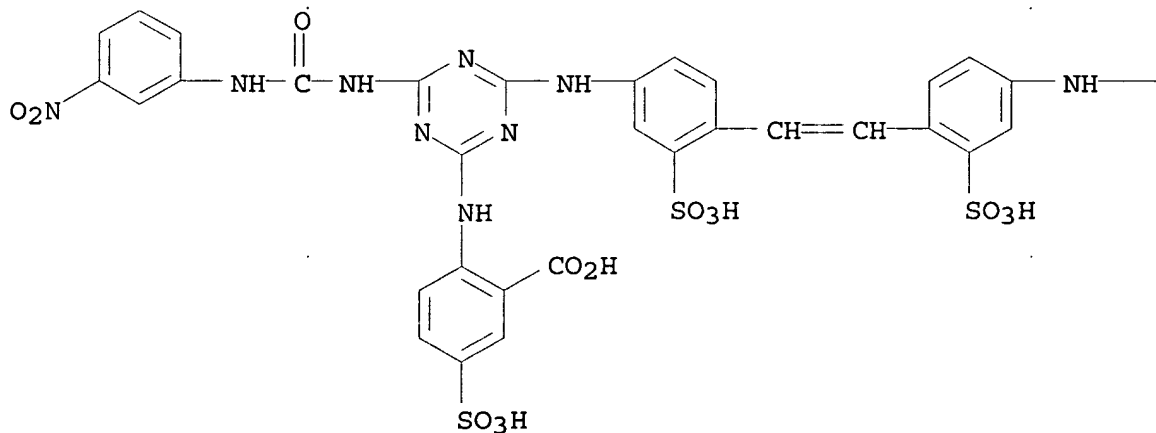
PAGE 1-B



RN 87588-72-5 HCAPLUS

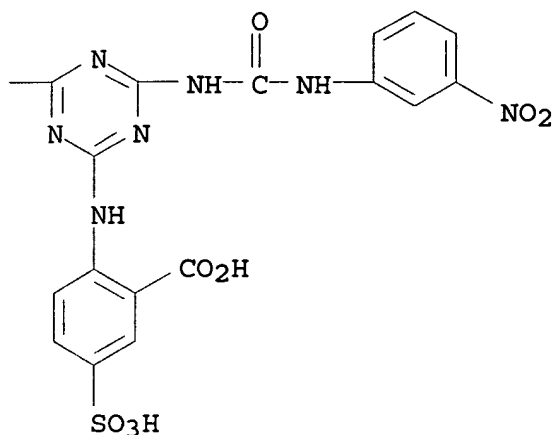
CN Benzoic acid, 2,2'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino[6-
 [[[3-nitrophenyl)amino]carbonyl]amino]-1,3,5-triazine-4,2-
 diyl]imino]]bis[5-sulfo-, tetrasodium salt (9CI) (CA INDEX NAME)

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●4 Na

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CC 41-10 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 80

IT 87570-78-3 87570-79-4 87570-80-7

87570-81-8 87570-82-9 87570-83-0

87570-84-1 87570-85-2 87570-86-3

87588-72-5

RL: ANT (Analyte); ANST (Analytical study)
(thin-layer chromatog. of)

L35 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1971:465304 HCAPLUS

DOCUMENT NUMBER: 75:65304

TITLE: Fluorescent whiteners consisting of
4,4'-bis(triazinylamino)-2,2'-stilbenedisulfonic
acid derivatives

INVENTOR(S): Moeller, Hinrich; Bloching, Helmut; Werner,
Claus

PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H.

SOURCE: Ger. Offen., 31 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1955431	A	19710506	DE 1969-1955431	19691104
PRIORITY APPLN. INFO.:				196911

04

GI For diagram(s), see printed CA Issue.

AB Stilbene-type fluorescent whiteners (I, R1 = H, HOCH2CH2, R2 = H, HOCH2CH2, Ph, 4-C6H4CO2Na, 4-C6H4SO3Na or R1R2N = morpholino, R3 = H, PhCH2, R4 = H, R5 = H, CO2Na, Ph) were prep'd. and used to whiten cotton and polyamide fabrics. I have esp. good compatibility with the quaternary ammonium salts used in textile softening compns. Thus, cyanuric chloride was treated with 4,4'-diaminostilbene-2,2'-disulfonic acid in the presence of borax in H2O at 0-5°, soda added, the mixt. treated with H3BO3 and 3-amino-s-triazole at 20°, soda added, the resulting mixt. treated with (HOCH2CH2)2NH and soda, and heated at 70° to give di-Na 4,4'-bis[4-(diethanolamino)-6-(s-triazol-3-ylamino)-s-triazin-2-ylamino]stilbene-2,2'-disulfonate (I, R1 = R2 = HOCH2CH2, R3 = R4 = R5 = H). Nine other I were similarly prep'd.

IT 33144-31-9

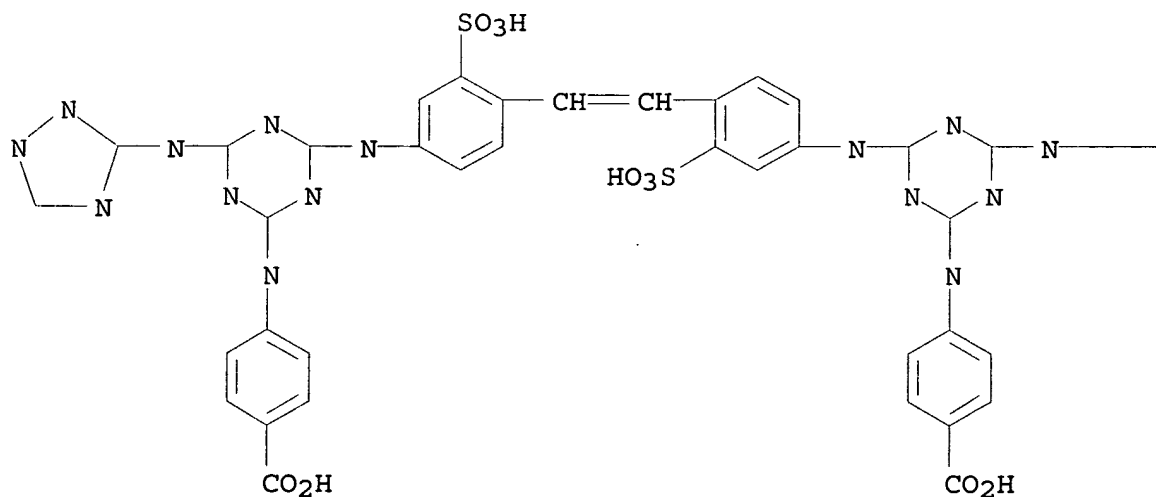
RL: USES (Uses)

(fluorescence on cotton)

RN 33144-31-9 HCAPLUS

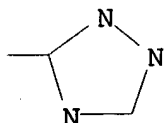
CN Benzoic acid, 4,4'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-(s-triazol-3-ylamino)-s-triazine-4,2-diyl]imino]]di-, tetrasodium salt (8CI) (CA INDEX NAME)

PAGE 1-A



●₄ Na

PAGE 1-B



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IC C07D; D06L

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

IT 33144-29-5 33144-30-8 **33144-31-9** 33144-32-0
 33144-33-1 33144-34-2 33144-35-3 33144-36-4 33144-37-5
 33144-38-6 33306-24-0

RL: USES (Uses)

(fluorescence on cotton)

L35 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1971:59348 HCAPLUS

DOCUMENT NUMBER: 74:59348

TITLE: Photographic printing paper with improved fluorescent whiteness

INVENTOR(S): Amano, Hiroyuki; Tsuji, Nobuo; Miyazako, Takushi; Shirasu, Kazuo; Tutiya, Yosinori
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.

SOURCE: Ger. Offen., 25 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2023151	A	19701126	DE 1970-2023151	197005 12
DE 2023151	C3	19781012		
US 3650752	A	19720321	US 1970-36525	197005 12
GB 1273085	A	19720503	GB 1970-1273085	197005 12
PRIORITY APPLN. INFO.:			JP 1969-36404	A 196905 12

AB The photog. paper is coated with a Ag halide light-sensitive layer contg. a fluorescent whitening agent and a partially urethanized poly(vinyl alc.). Thus, baryta paper is coated with a gelatin Ag(Cl,Br) emulsion contg. a fluorescent whitening agent (Leucophor B) and 7-15% urethanated poly(vinyl alc.) (I) to give greater fluorescence whiteness than papers coated with I-free compns. Color printing papers were also prepd.

IT 32697-50-0

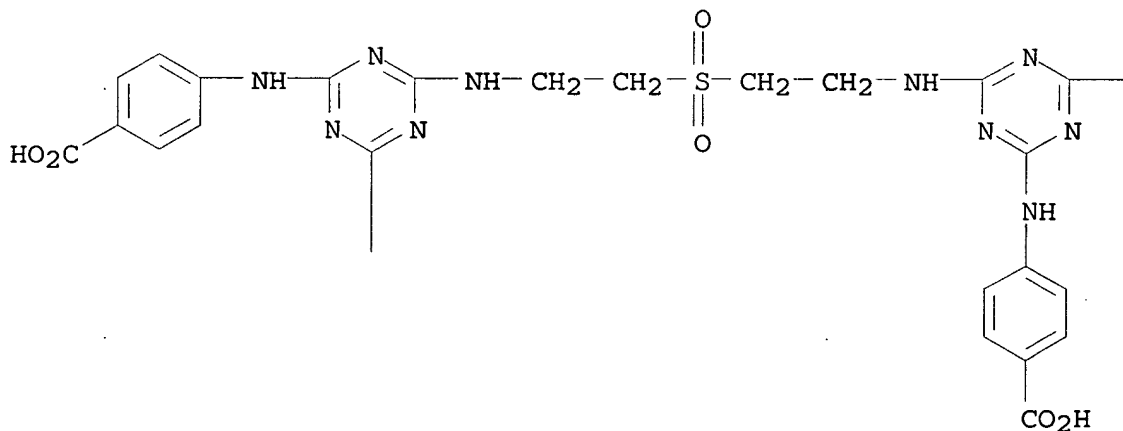
RL: USES (Uses)

(fluorescent whitening agents, contg. urethanized vinyl alc. polymer for photographic printing paper)

RN 32697-50-0 HCAPLUS

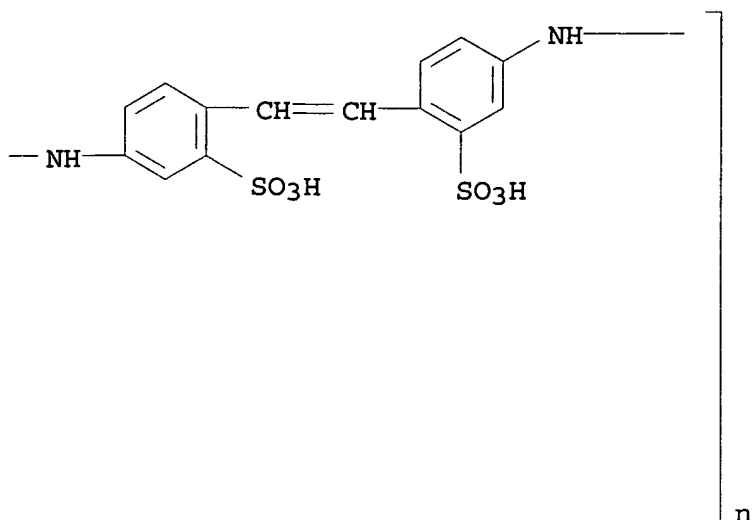
CN Poly[[6-[(4-carboxyphenyl)amino]-1,3,5-triazine-2,4-diyl]imino-1,2-ethanediylsulfonyl-1,2-ethanediylimino[6-[(4-carboxyphenyl)amino]-1,3,5-triazine-2,4-diyl]imino(3-sulfo-1,4-phenylene)-1,2-ethenediyl(2-sulfo-1,4-phenylene)imino tetrasodium salt] (9CI) (CA INDEX NAME)

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● 4 Na

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IC G03C
 CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 IT 12768-91-1, Kayaphor S 29646-78-4 32697-50-0
 RL: USES (Uses)
 (fluorescent whitening agents, contg. urethanized vinyl alc.
 polymer for photographic printing paper)

L35 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1970:17276 HCAPLUS
 DOCUMENT NUMBER: 72:17276
 TITLE: Color photographic copying paper
 INVENTOR(S): Amano, Hiroyuki; Nishio, Fumihiko; Tsuji, Nobuo;
 Shirasu, Kazuo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd.
 SOURCE: Ger. Offen., 41 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1901443	A	19690828	DE 1969-1901443	196901 13
JP 48021288	B4	19730627	JP 1968-1669	196801 12
BE 726603	A	19690616	BE 1969-726603	

				196901 08
NL 6900374	A	19690715	NL 1969-374	
				196901 09
FR 2000186	A5	19690829	FR 1969-206	
				196901 09
GB 1239732	A	19710721	GB 1969-1239732	
				196901 10
US 3676139	A	19720711	US 1969-790846	
				196901 13
PRIORITY APPLN. INFO.:		JP 1968-1669	A	196801 12

GI For diagram(s), see printed CA Issue.

AB A paper substrate such as baryta paper, is coated with an uv absorption agent (2-20 mg/100 cm²) and a H₂O-sol. fluorescent whitening agent (05-10 mg/100 cm²) having the general structures I and II, where R and R₂ are H, C₁-8 alkyl, C₆-12 aryl, C₂-4 hydroxyalkyl or a deriv., a C₁-4 sulfoalkyl or an alkali or ammonium salt thereof; R₁ is halogen, OR, SR, NR₃R₄, or NA, whereby R₃ and R₄ are H, C₁-12 alkyl or hydroxyalkyl, sulfoalkyl or alkali or ammonium salt thereof, carboxyalkyl or alkali or ammonium salt thereof, C₆-18 aryl, optionally substituted with OH, COOH, or SO₃H, or an alkali- or ammonium salt thereof, an optionally substituted C₂-10 cycloalkyl; A is a C₄-5 alkylene, heterocyclic atom, or heterocyclic atom contg. an alkylene group; Y is optionally substituted C₂-10 alkylene or optionally substituted C₆-18 allylene; Z is a divalent heterocyclic atom or group, M is alkali metal or NH₄; and m = 0 or 1.

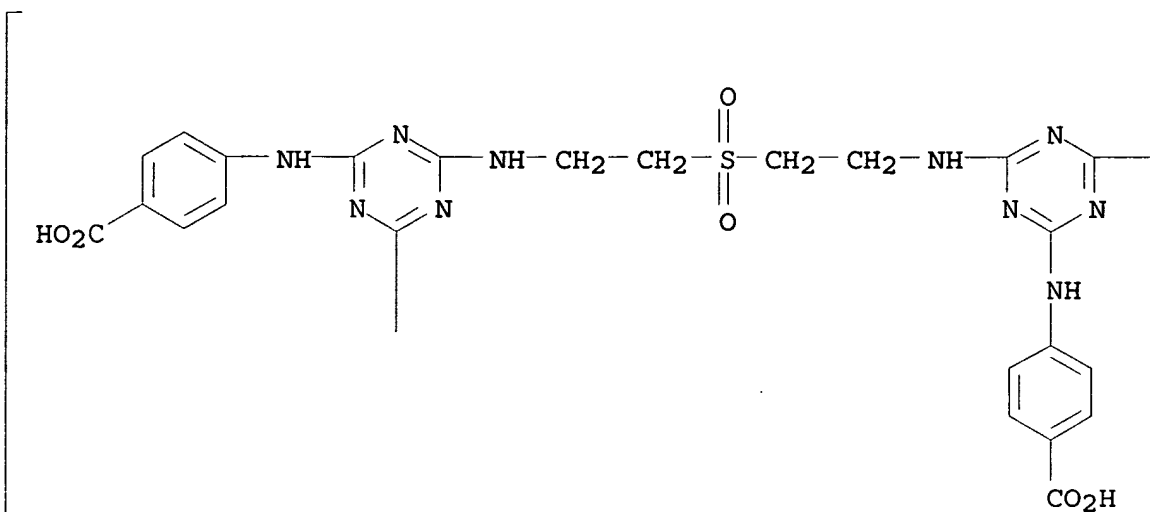
IT 32697-50-0, Poly[[6-(p-carboxyanilino)-s-triazine-2,4-diyl]iminoethylenesulfonylethyleneimino[6-(p-carboxyanilino)-s-triazine-2,4-diyl]imino(3-sulfo-p-phenylene)vinylene(2-sulfo-p-phenylene)imino tetrasodium salt]

RL: TEM (Technical or engineered material use); USES (Uses)
(photographic color copying papers contg.)

RN 32697-50-0 HCAPLUS

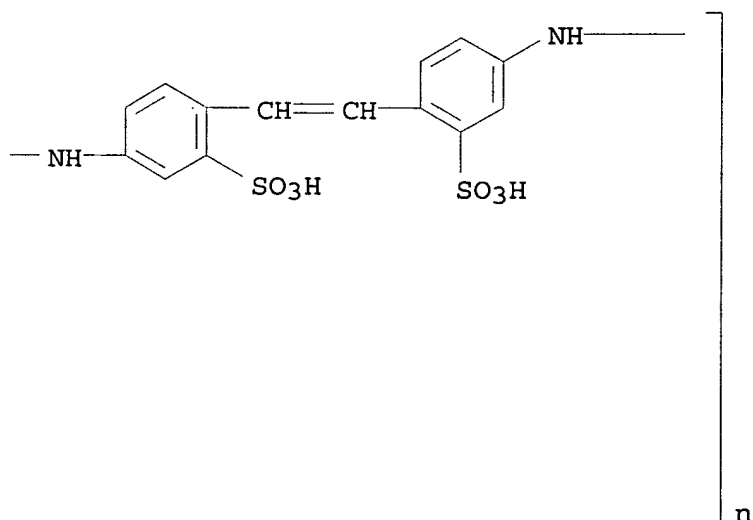
CN Poly[[6-[(4-carboxyphenyl)amino]-1,3,5-triazine-2,4-diyl]imino-1,2-ethanediylsulfonyl-1,2-ethanediylimino[6-[(4-carboxyphenyl)amino]-1,3,5-triazine-2,4-diyl]imino(3-sulfo-1,4-phenylene)-1,2-ethenediyl(2-sulfo-1,4-phenylene)imino tetrasodium salt] (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Na

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IC G03C; C07D
 CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 IT 1843-05-6 3896-11-5 6826-44-4 14542-01-9 19040-96-1

19530-42-8 26650-87-3 26650-91-9 26650-92-0 28416-03-7
 32697-50-0, Poly[[6-(p-carboxyanilino)-s-triazine-2,4-
 diyl]iminoethylenesulfonylethyleneimino[6-(p-carboxyanilino)-s-
 triazine-2,4-diyl]imino(3-sulfo-p-phenylene)vinylene(2-sulfo-p-
 phenylene)imino tetrasodium salt]

RL: TEM (Technical or engineered material use); USES (Uses)
 (photographic color copying papers contg.)

L35 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1969:440227 HCAPLUS

DOCUMENT NUMBER: 71:40227

TITLE: Direct phthalocyanine green dyes

INVENTOR(S): Chmatal, Vladimir; Allan, Zdenek J.; Horyna,
 Jaroslav; Panchartek, Josef; Virag, Oldrich

SOURCE: Czech., 3 pp.
 CODEN: CZXXA9

DOCUMENT TYPE: Patent

LANGUAGE: Czech

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
CS 121263		19661215	CS	196405 05

GI For diagram(s), see printed CA Issue.

AB Brilliant green dyes of the general formula I (Pc is a Cu
 phthalocyanine residue) were prepd. and have a good light and wash
 fastness on cellulose. Thus, 32.2 parts of the equimol. condensate
 from 2,4-(H₂N)2C₆H₃SO₃H and cyanuric chloride was heated to
 40° with 50.6 parts 3,1,5-H₂NC₁₀H₅-(SO₃H)₂ →
 4-H₂NC₆H₄NHCOCH₂ COMe, cooled to 20°, treated with aq.
 suspension of 94.9 parts Cu sulfophthalocyaninetris-(sulfonyl
 chloride), condensed with 9.2 parts benzidine, and heated for 1 hr.
 to 90-100° to give I [R = H, X = direct bond, Y =
 1,5,3-(HO₃S)2C₁₀H₅(Q)], a dark green powder sol. in H₂O and concd.
 H₂SO₄. Similarly were prepd. green I (R, X, and Y given): H, NHCO,
 Q; SO₃H, CH:CH, Q. Similarly prepd. were the yellowish green I (R =
 H, X = direct bond) with Y being 4,3-MeO(HO₃S)C₆H₃ or
 4,3-Me(HO₃S)C₆H₃.

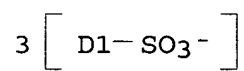
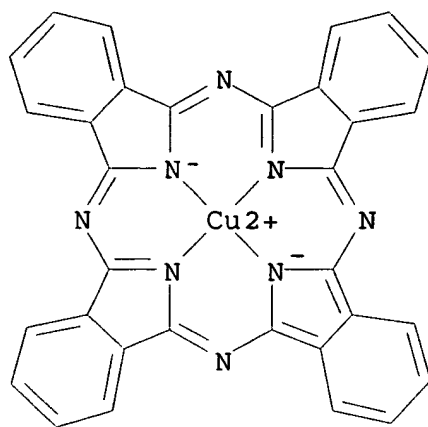
IT 26428-01-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

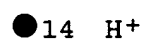
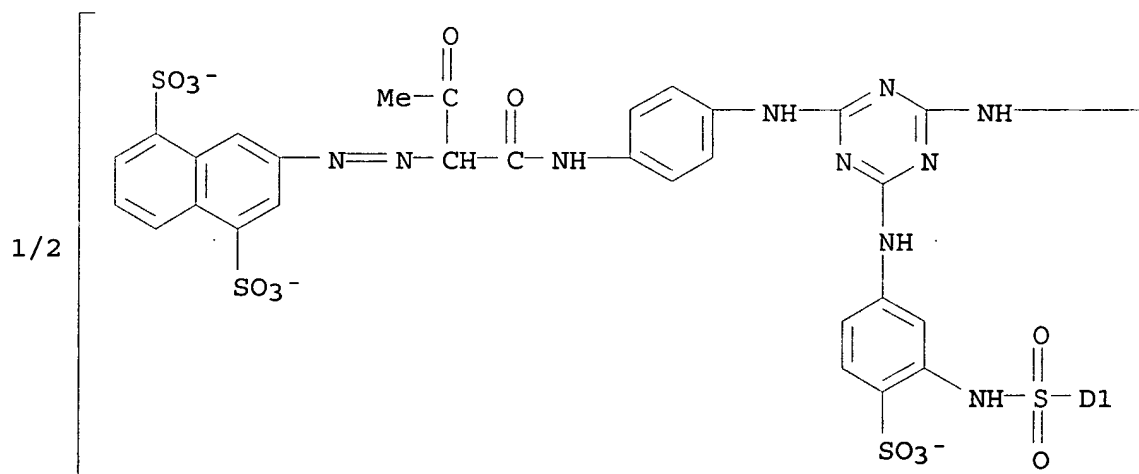
RN 26428-01-3 HCAPLUS

CN Copper, [μ-[[tetradecahydrogen [vinylenebis[(3-sulfo-p-
 phenylene)imino[6-[p-[2-[(4,8-disulfo-2-
 naphthyl)azo]acetoacetamido]anilino]-s-triazine-4,2-diyl]imino(6-
 sulfo-m-phenylene)iminosulfonyl]]diphthalocyaninetrisulfonato](4-
)]]di- (8CI) (CA INDEX NAME)

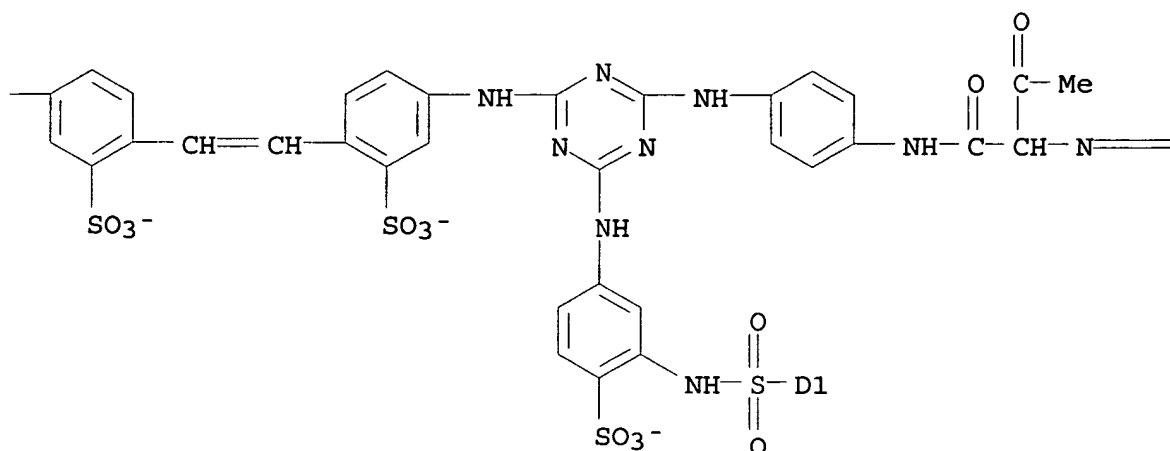
PAGE 1-A



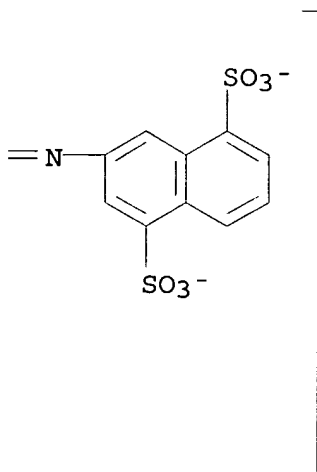
PAGE 2-A



PAGE 2-B



PAGE 2-C



IC C09B
CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
IT 26427-99-6P 26428-00-2P **26428-01-3P** 26777-95-7P
27014-99-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

L35 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1968:31050 HCAPLUS
DOCUMENT NUMBER: 68:31050
TITLE: Stilbene optical brighteners
INVENTOR(S): Roussos, Michel; Dutheil, Jacques

PATENT ASSIGNEE(S): Societe de Produits Chimiques et de Synthese
SOURCE: Fr., 3 pp.
CODEN: FRXXAK
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1479540		19670505	FR	196603 25

GI For diagram(s), see printed CA Issue.

AB Compds. of the formula I, useful as optical brighteners for cellulose and polyamide fibers, were prepd. Thus, 320 g. ice and a soln. of 37 g. [4,2-H₂N(NaO₃S)C₆H₃CH:]₂ in 320 cc. H₂O were added at 5° to a soln. of 39.5 g. cyanuric chloride in 250 cc. Me₂CO, the mixt. stirred at 8-10° for 1 hr., neutralized with NaOH, treated with 38 g. 4-H₂NC₆H₄SO₂NH₂, heated at 35° for 150 min. while maintaining pH 6-7 with 30% NaOH, 31.6 g. N-(3-aminopropyl)morpholine and 18.5 g. NaHCO₃ added, heated to 90-5°, Me₂CO distd., the mixt. heated to 125° for 3 hrs., added to 1 l. H₂O at 90°, and acidified (pH 4) with HCl to give I (X = 4-NHC₆H₄SO₂NH₂), E₁%1 cm. = 480 at 350 mμ (50% EtOH). Similarly, the following I were prepd. (X, λ_{max}. in mμ and E₁%1 cm. given): 4-NHC₆H₄CO₂H, 347, 460; 4-NHC₆H₄SO₂CH₂CH₂OH, 350, 400; NHMe, 348, 550; OMe, 345, 470; N(CH₂CH₂OH)₂, 350, 450.

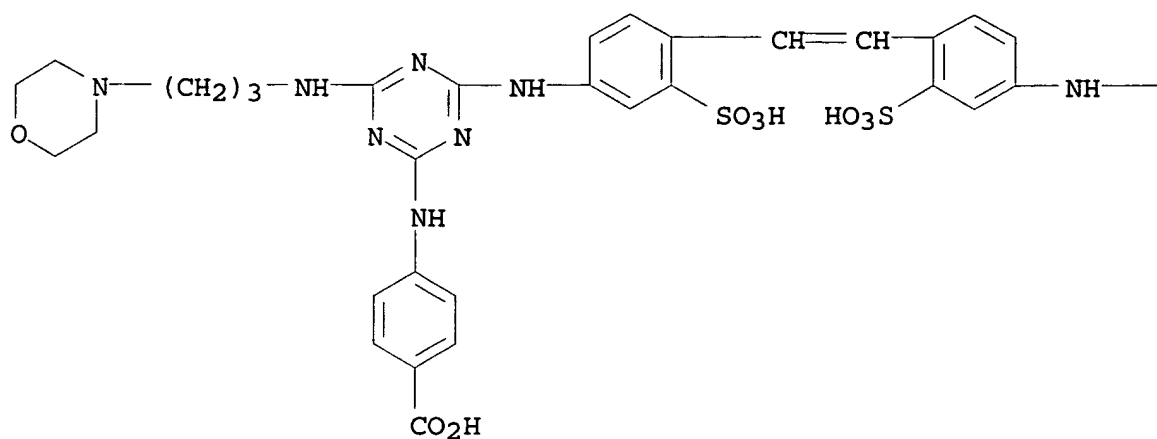
IT 17139-47-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

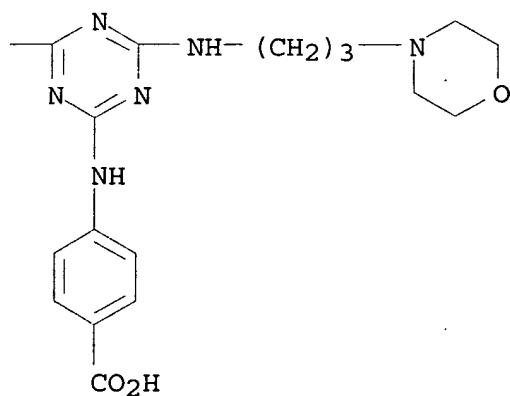
RN 17139-47-8 HCAPLUS

CN Benzoic acid, 4,4'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-[(3-morpholinopropyl)amino]-s-triazine-4,2-diyl]imino]]di- (8CI) (CA INDEX NAME)

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IC C09B
 CC 40 (Dyes, Fluorescent Brightening Agents, and Photosensitizers)
 IT 17121-40-3P 17121-41-4P 17121-42-5P 17139-46-7P
 17139-47-8P 17233-75-9P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

L35 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1957:32217 HCAPLUS
 DOCUMENT NUMBER: 51:32217
 ORIGINAL REFERENCE NO.: 51:6173e
 TITLE: Triazine dyes for cotton containing carbamoyl
 hydrazide and its imido and thio analogs
 INVENTOR(S): Strobel, Albert F.; Williams, Wm. W.

PATENT ASSIGNEE(S): General Aniline & Film Corp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2768158		19561023	US 1953-345732	19530330

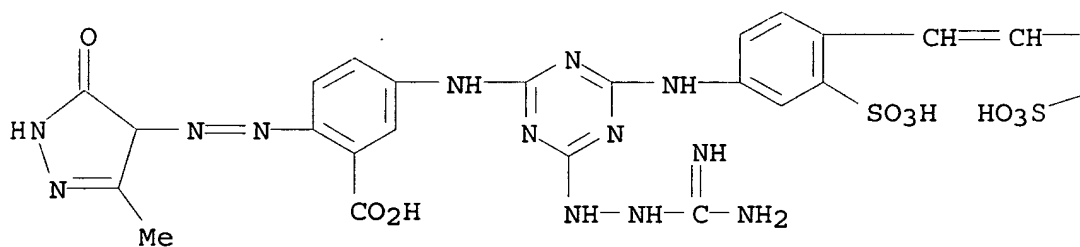
AB See Brit. 751,997 (C.A. 51, 2299e).

IT 108924-43-2, Benzoic acid, 3,3'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino]]bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)-(prepn. of)]

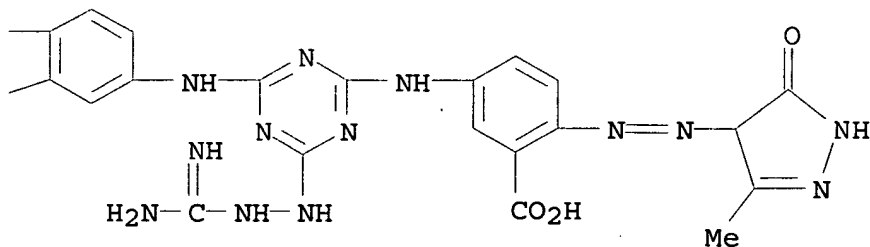
RN 108924-43-2 HCAPLUS

CN Benzoic acid, 3,3'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino]]bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)-(6CI) (CA INDEX NAME)]

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PAGE 1-B



CC 25 (Dyes and Textiles Chemistry)

IT 108726-46-1, Salicylic acid, 5-[p-[[4-[[8-hydroxy-7-[4-(8-hydroxy-3,6-disulfo-1-naphthylazo)-6-methoxy-m-tolylazo]-3,6-disulfo-1-naphthyl]amino]-6-thiosemicarbazido-s-triazin-2-yl]amino]phenylazo]-

108924-43-2, Benzoic acid, 3,3'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino]]bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)-109129-48-8, Salicylic acid, 5-[p-[[4-(2-amidinohydrazino)-6-[[8-hydroxy-7-[4-(8-hydroxy-3,6-disulfo-1-naphthylazo)-6-methoxy-m-tolylazo]-3,6-disulfo-1-naphthyl]amino]-s-triazin-2-yl]amino]phenylazo]-120856-77-1, 1-Naphthol-3-sulfonic acid, 6,6'-[(6-semicarbazido-s-triazine-2,4-diyl)diimino]bis[2-(2-hydroxy-4-sulfophenylazo)-120856-77-1, 1-Naphthol-3-sulfonic acid, 6,6'-[(6-semicarbazido-s-triazine-2,4-diyl)diimino]bis[2-(2-hydroxy-4-sulfophenylazo)-, copper deriv.
(prepn. of)

L35 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1957:10970 HCAPLUS

DOCUMENT NUMBER: 51:10970

ORIGINAL REFERENCE NO.: 51:2299e-i,2300a

TITLE: Triazine dyes for cotton containing carbamoyl hydrazide and its imido and thio analogs

PATENT ASSIGNEE(S): General Aniline & Film Corp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 751997		19560704	GB 1954-9124	195403 29

AB The following dyes are prepd. from C3N3Cl3, by condensing one of the Cl atoms with guanylhiazine, semicarbazide, or thiosemicarbazide. Thus, 43.3 parts 5-nitroanthranilic acid is slurried with 1500 H2O, heated to 65° diazotized, treated 2 hrs. with 77 parts 4N NaOAc and the coupler soln. of 23.4 parts 3-methyl-5-pyrazolone in 200 water, which was treated with 20.4 parts 40% NaOH at 70°, then cooled to 25° at pH 9, and dild. to 250 parts. Yield 87.6%. This is reduced with Na2S in NaOH soln. to give an amino azo dye (III). 4,4'-Diamino-2,2'-disulfostilbene (16 parts) is dissolved in 250 H2O and 25 Na2CO3 20% on a steambath, then cooled to 0°; 14.2 parts C3N3Cl3 in 60 Me2CO at 35° is poured into the diamine soln. at 1-4° pH 6.7-7.0. After 20 min., 0.531 N NaOH is added to neutralize the liberated acid to pH 5.5-6.5; 22.5 parts of III is dissolved in 750 water at 100°, cooled to 60°, poured onto 600 ice, then the condensation product is added; the temp. rises to 8°; 78 ml. 0.531N NaOH is added in 10 min. to bring the pH to 7.0, then the temp. is kept at 8-15° for one hr. A gelatinous mass is formed; 51.6 ml. more of 0.531N NaOH is added to bring pH to 10.3, heated up to 40° in 20 min., 45° for 30 min. The total time of condensation is 5 hrs. The next day the pH is 6.7. In the third

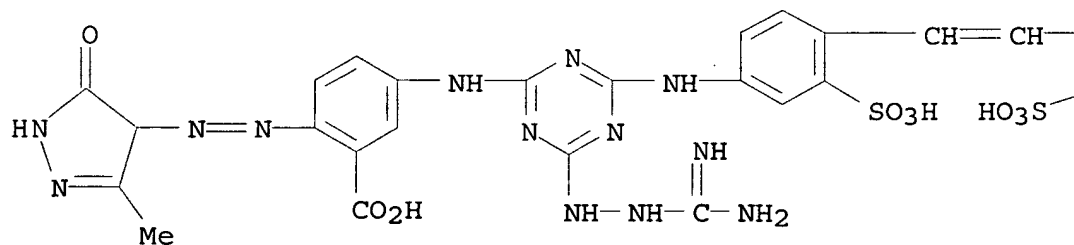
condensation 10.5 parts guanylhiazine bicarbonate (IV) is slurried with 70 ml. 3.7% HCl, which is added to the second condensation product at 27° at pH 7.0 to 10.9, heated to 90° in 40 min., and kept there for 100 min. The pH is brought to 11.3 with NaOH, the vol. is 3.5 l. at 70°; then 0.5 part more IV is added and kept at 95° for 5 hrs. The dye (48.5 parts) is dried in vacuum. It dyes cotton orange-yellow, which is made fast to light and washing on after-treatment with Cu salt polymer mixt. Similar dyes are obtained by using thiosemicarbazide, or semicarbazide instead of IV. Another dye is prepd. from 1 mole C₃N₃Cl₃, 1 mole IV, 1 mole 4'-amino-3-carboxy-4-hydroxyazobenzene, and 1 mole of the disazo dye, prepd. from 1 mole diazotized 8-amino-1-naphthol-3,6-disulfonic acid (V) coupled with 2methoxy-5-methylaniline and the resulting amino azo dye diazotized and coupled with V. A similar dye is obtained by using thiosemicarbazide instead of IV. Another dye is prepd. similarly from 1 mole C₃N₃Cl₃, 1 mole semicarbazide, and 2 moles of the azo dye prepd. from diazotized 2-aminophenol-5-sulfonic acid and 1 acid, followed by coppering. A similar dye is obtained by using IV instead of semicarbazide.

IT 108924-43-2, Benzoic acid, 3,3'-{vinylenebis{(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino}}bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)-(prepn. of)

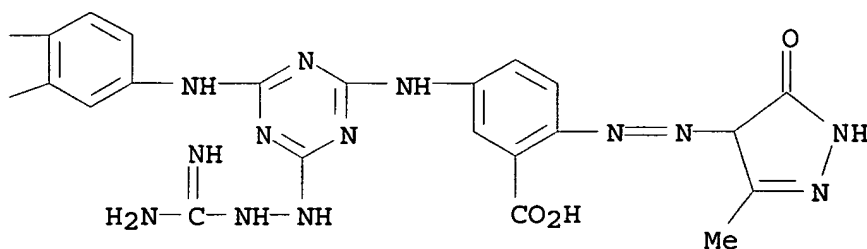
RN 108924-43-2 HCAPLUS

CN Benzoic acid, 3,3'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino]]bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)-(6CI) (CA INDEX NAME)

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PAGE 1-B



CC 25 (Dyes and Textiles Chemistry)
 IT 108726-46-1, Salicylic acid, 5-{p-{{4-{{8-hydroxy-7-[4-(8-hydroxy-3,6-disulfo-1-naphthylazo)-6-methoxy-m-tolylazo]-3,6-disulfo-1-naphthyl}amino}-6-thiosemicarbazido-s-triazin-2-yl}amino}phenylazo}-
 108924-43-2, Benzoic acid, 3,3'-{vinylenebis{(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino}}bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)-
 109129-48-8, Salicylic acid, 5-{p-{{4-(2-amidinohydrazino)-6-{{8-hydroxy-7-[4-(8-hydroxy-3,6-disulfo-1-naphthylazo)-6-methoxy-m-tolylazo]-3,6-disulfo-1-naphthyl}amino}-s-triazin-2-yl}amino}phenylazo}-
 120856-77-1, 1-Naphthol-3-sulfonic acid, 6,6'-[(6-semicarbazido-s-triazine-2,4-diyl)diimino]bis[2-(2-hydroxy-4-sulfophenylazo)-
 (prepn. of)

L35 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1950:54367 HCAPLUS
 DOCUMENT NUMBER: 44:54367
 ORIGINAL REFERENCE NO.: 44:10329d-i,10330a-c
 TITLE: Substantive azo dyes
 PATENT ASSIGNEE(S): J. R. Geigy, A.-G.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 616523		19490124	GB 1944-16588	194408 31

GI For diagram(s), see printed CA Issue.
 AB Compds. obtained by condensation of 2 mols. of cyanuric chloride successively with 1 mol. of a deriv. of 4,4'-diaminostilbene, 2 mols. of an arylazoarylamine, and 2 mols. of another amine dyed cotton directly fast yellow to red shades. These dyes have the general formula (I), where Y may be replaced by residues from groups A, B, or C. Compds. of group A are 4-amino-1,1'-azobenzene-3'-

sulfonic acid, 4-amino-3-methoxy-1,1'-azobenzene-3'-carboxylic acid, the compd. from 2-amino-4,8-naphthalenedisulfonic acid and 3-aminoacetanilide, the compd. from 1-diazo-8-(p-tolylsulfonyloxy)-3,6-naphthalenedisulfonic acid and 1-amino-5-methyl-2-methoxybenzene, the compd. from 1-diazo-8-(p-tolylsulfonyloxy)naphthalene and 1-amino-5-methyl-2-methoxybenzene, 4-amino-2-acetamido-4'-chloro-1,1'-azobenzene-3'-sulfonic acid, 4-amino-4'-hydroxy-1,1'-azobenzene-3'-carboxylic acid, 4-amino-2-methoxy-2'-hydroxy-1,1'-azobenzene-5'-sulfonic acid, 2-amino-5-hydroxy-7-naphthalenesulfonic acid coupled with diazotized o-aminobenzoic acid, diazotized 4-amino-1,1'-azobenzene coupled with 2-amino-5-hydroxy-7-naphthalenesulfonic acid, 4-amino-2-methyl-6-methoxy-4'-acetamido-1,1'-azobenzene-5'-sulfonic acid, 4-amino-2-methyl-4'-hydroxy-3'-carboxy-1,1'-azobenzene-5'-sulfonic acid, the compd. from 1-amino-4-hydroxy-3-carboxy-5-benzenesulfonic acid and 1-amino-3-methyl-6-methoxybenzene, 4-amino-2-methyl-5-methoxy-1,1'-azobenzene-4'-sulfonic acid, the compd. from anthranilic acid diazotized and coupled with 2-(3-aminobenzamido)-5-hydroxy-7-naphthalenesulfonic acid, the compd. from diazotized 1-amino-8-(p-tolylsulfonyloxy)-3,6-naphthalene-disulfonic acid and 1-amino-2-methoxy-5-methylbenzene diazotized and coupled with 2-amino-5-hydroxy-7-naphthalenesulfonic acid, the compd. from 1-[3-(or 4)-aminobenzamido]-4-hydroxy-3-carboxy-5-benzenesulfonic acid diazotized and coupled with 1-amino-3-methyl-6-methoxybenzene. Compds. in group B are Me₂NH, PhNH₂.HCl, 3-aminoacetanilide, 1-chloro-2,4-diaminobenzene, 1-amino-4-hydroxy-3-benzenecarboxylic acid, PhNHMe, NH₃, 1-amino-4-hydroxy-3-carboxy-5-benzenesulfonic acid, p-phenylenediamine, 5-amino-2-[2-(or 4)-hydroxy-3-carboxy-5-sulfophenyl]-1,3-benzotriazole, 4'-amino-5,6'-dimethyl-4-hydroxydiphenylmethane-3-carboxylic acid. Compds. from group C are 4-amino-3-methoxy-1,1'-azobenzene-3'-carboxylic acid, 4-amino-4'-hydroxy-1,1'-azobenzene-3'-carboxylic acid, 4-amino-2-methoxy-2'-hydroxy-1,1'-azobenzene-5'-sulfonic acid, 4-amino-2,5-dimethoxy-2'-hydroxy-1,1'-azobenzene-5'-sulfonic acid. The fastness of these dyes is considerably improved by after treatments with metal salts or HCHO, or by sapon. and development with 1-phenyl-3-methyl-5-pyrazolone. A dye was also prepd. from cyanuric chloride and 4,4'-diamino-3,3'-stilbenedicarboxylic acid treated with 4-amino-2-acetamido-4'-chloro-1,1'-azobenzene-3'-sulfonic acid and PhNH₂.HCl. 4,4'-Diamino-2,2'-bibenzylidisulfonic acid and cyanuric chloride were treated with 4-amino-4'-hydroxy-1,1'-azobenzene-3'-carboxylic acid and PhNH₂.

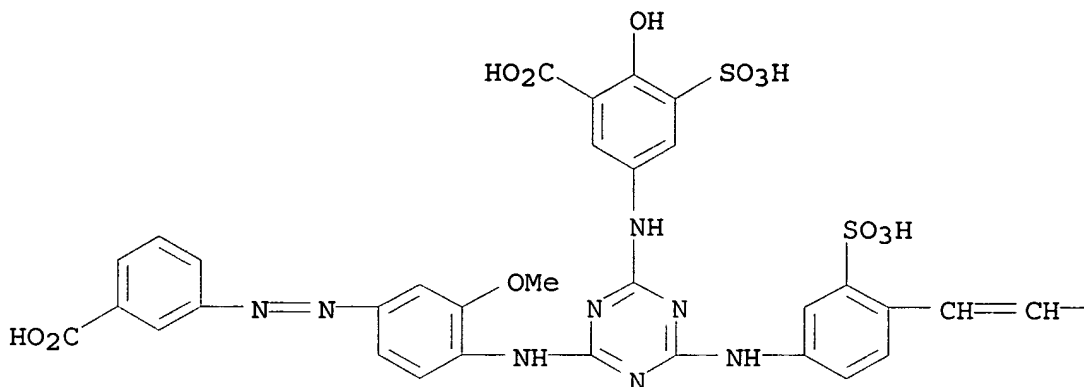
IT 857755-35-2, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxy-5-sulfoanilino)-6-[4-(m-carboxyphenylazo)-o-anisidino]-s-triazin-2-ylamino]- 858239-39-1, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[p-(m-sulfophenylazo)anilino]-s-triazin-2-ylamino]- 858239-43-7, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[5-methyl-4-(p-sulfophenylazo)-o-anisidino]-s-triazin-2-ylamino]- 858239-49-3, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[p-(3-carboxy-4-

hydroxyphenylazo) anilino] -s-triazin-2-ylamino] -
(prepn. of)

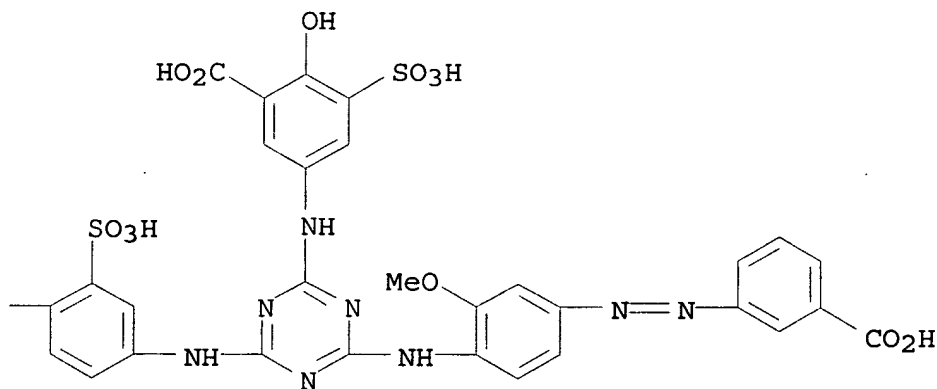
RN 857755-35-2 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxy-5-sulfoanilino)-6-[4-(m-carboxyphenylazo)-o-anisidino]-s-triazin-2-ylamino] - (5CI) (CA INDEX NAME)

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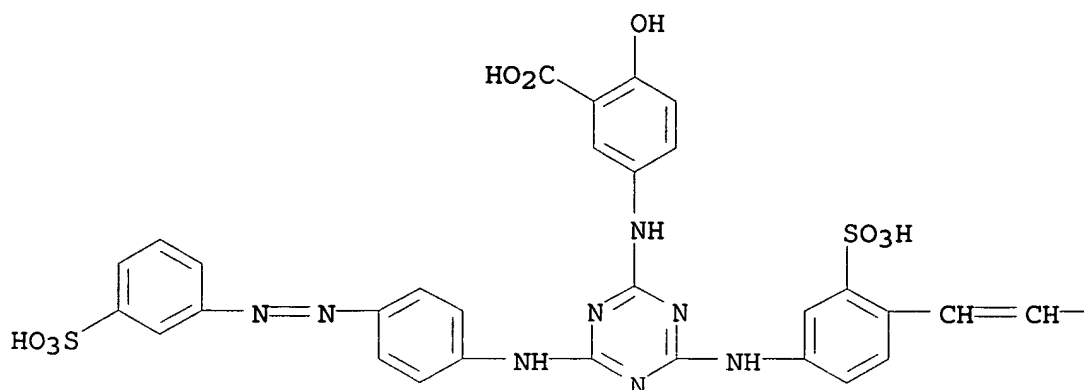
PAGE 1-B



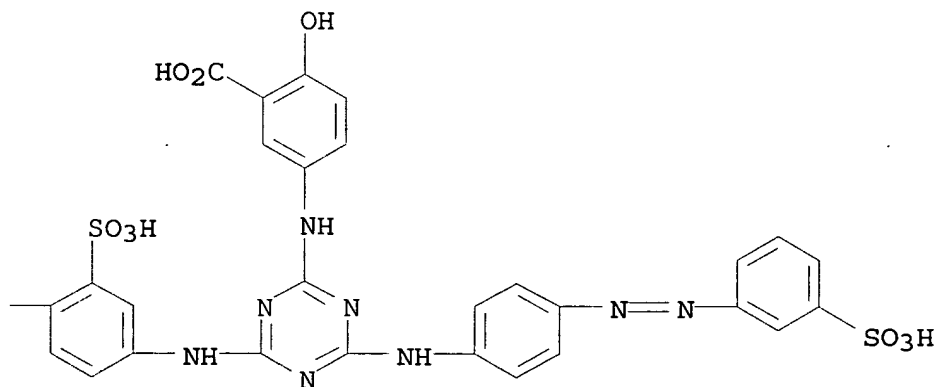
RN 858239-39-1 HCAPLUS

CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[p-(m-sulfophenylazo) anilino]-s-triazin-2-ylamino] - (5CI) (CA INDEX NAME)

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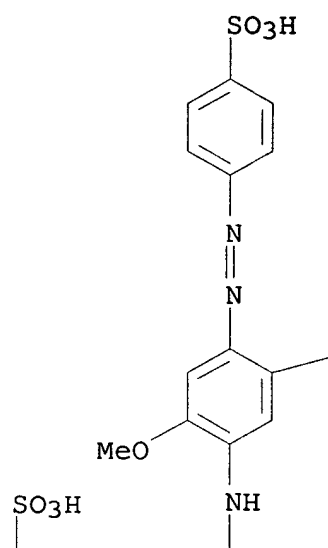
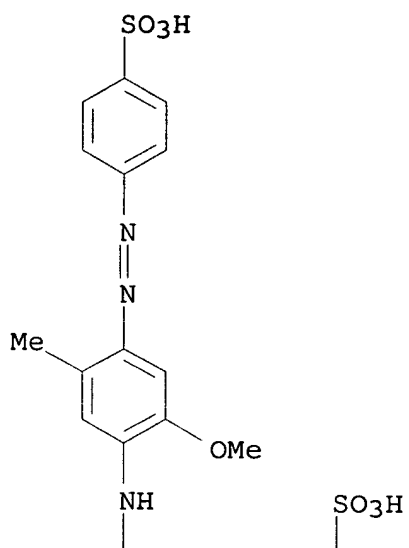
PAGE 1-B



RN 858239-43-7 HCAPLUS

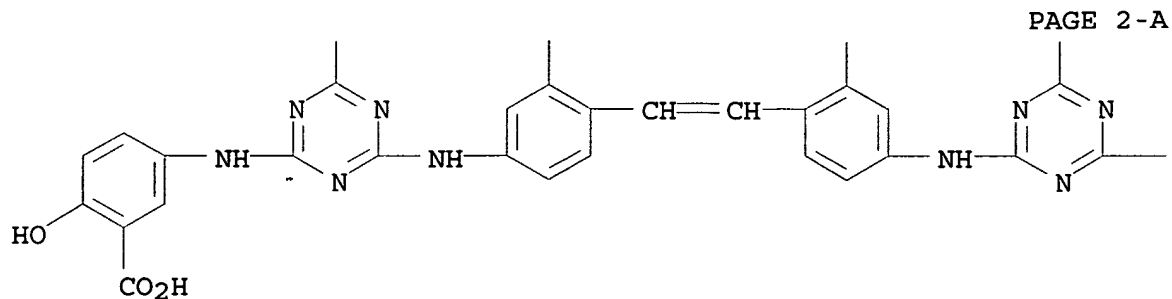
CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[5-methyl-4-(p-sulfonylazo)-o-anisidino]-s-triazin-2-ylamino]- (5CI) (CA INDEX NAME)

PAGE 1-A

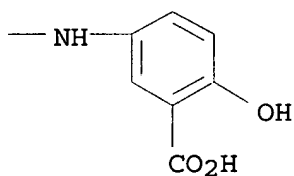


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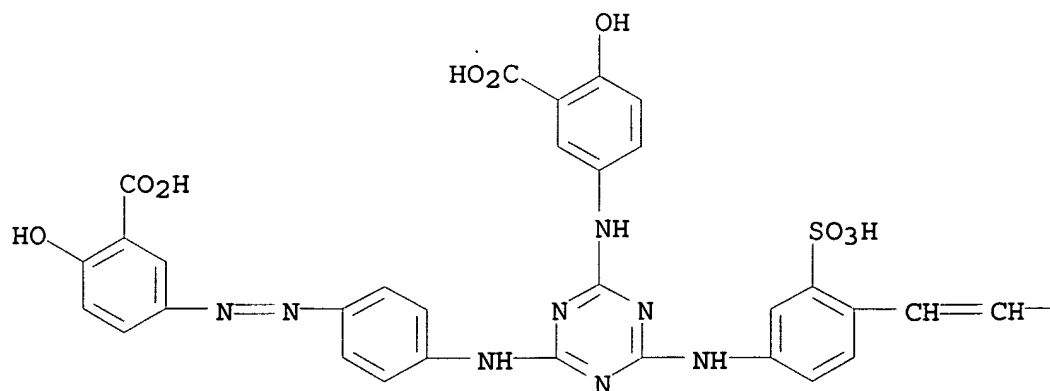


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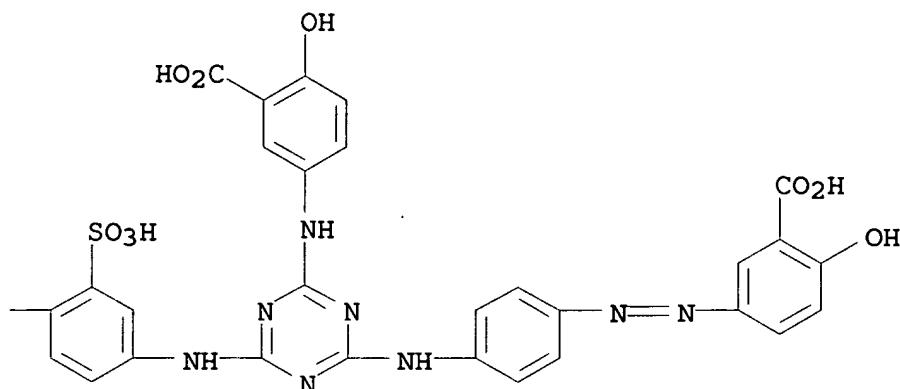


RN 858239-49-3 HCAPLUS
 CN 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-s-triazin-2-ylamino]- (5CI) (CA INDEX NAME)

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PAGE 1-B



CC 25 (Dyes and Textiles Chemistry)

IT 85895-89-2, 1-Phenol-4-sulfonic acid, 2-(4-amino-2,5-dimethoxyphenylazo) - 857755-35-2, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxy-5-sulfoanilino)-6-[4-(m-carboxyphenylazo)-o-anisidino]-s-triazin-2-ylamino] - 858239-17-5, 2,2'-Stilbenedisulfonic acid, 4-[4-(m-acetamidoanilino)-6-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-s-triazin-2-ylamino]-4'-[4,6-bis(m-acetamidoanilino)-s-triazin-2-ylamino] - 858239-39-1, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[p-(m-sulfophenylazo)anilino]-s-triazin-2-ylamino] - 858239-43-7, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[5-methyl-4-(p-sulfophenylazo)-o-anisidino]-s-triazin-2-ylamino] - 858239-49-3, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(3-carboxy-4-hydroxyanilino)-6-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-s-triazin-2-ylamino] - 860421-92-7, 2,2'-Stilbenedisulfonic acid, 4-[4-[3-acetamido-4-(4-chloro-3-sulfophenylazo)anilino]-6-anilino-s-triazin-2-ylamino]-4'-[4-anilino-6-(3-carboxy-4-hydroxyanilino)-s-triazin-2-ylamino] - 860422-46-4, Salicylic acid, 5-[p-[4-anilino-6-[4-[4-(4,6-dianilino-s-triazin-2-ylamino)-2-sulfostyryl]-3-sulfoanilino]-s-triazin-2-ylamino]phenylazo] - 860422-46-4, 2,2'-Stilbenedisulfonic acid, 4-[4-anilino-6-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-s-triazin-2-ylamino]-4'-(4,6-dianilino-s-triazin-2-ylamino) - 860422-49-7, Salicylic acid, 5-[p-[4-anilino-6-[4-[4-[4-anilino-6-[4-(2-hydroxy-5-sulfophenylazo)-2,5-dimethoxyanilino]-s-triazin-2-ylamino]-2-sulfostyryl]-3-sulfoanilino]-s-triazin-2-ylamino]phenylazo] - 860422-49-7, 2,2'-Stilbenedisulfonic acid, 4-[4-anilino-6-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-s-triazin-2-ylamino]-4'-[4-anilino-6-[4-(2-hydroxy-5-sulfophenylazo)-2,5-dimethoxyanilino]-s-triazin-2-ylamino] - 860422-51-1, 2,2'-Stilbenedisulfonic acid, 4-[4-anilino-6-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-s-triazin-2-ylamino]-4'-[4-anilino-6-[4-(2-hydroxy-5-sulfophenylazo)-m-anisidino]-s-triazin-2-ylamino] - 860422-51-1, Salicylic acid, 5-[p-[4-anilino-6-[4-[4-[4-anilino-6-[4-(2-hydroxy-5-sulfophenylazo)-m-anisidino]-s-triazin-2-ylamino]-2-sulfostyryl]-3-sulfoanilino]-s-

triazin-2-ylamino]phenylazo] - 860422-55-5, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-anilino-6-[4-(3-carboxy-4-hydroxy-5-sulfophenylazo)-m-toluidino]-s-triazin-2-ylamino] - 860422-85-1, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(m-acetamidoanilino)-6-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-s-triazin-2-ylamino] - 872827-33-3, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-anilino-6-[4-(m-carboxyphenylazo)-o-anisidino]-s-triazin-2-ylamino] - 873375-83-8, 2,2'-Stilbenedisulfonic acid, 4-[4-(m-acetamidoanilino)-6-[4-(m-carboxyphenylazo)-o-anisidino]-s-triazin-2-ylamino]-4'-[4,6-bis(m-acetamidoanilino)-s-triazin-2-ylamino] - 873400-62-5, 2,2'-Stilbenedisulfonic acid, 4-[4,6-bis(dimethylamino)-s-triazin-2-ylamino]-4'-[4-[4-(m-carboxyphenylazo)-o-anisidino]-6-dimethylamino-s-triazin-2-ylamino] - 873400-66-9, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-anilino-6-[p-(m-sulfophenylazo)anilino]-s-triazin-2-ylamino] - 873400-68-1, 2,2'-Stilbenedisulfonic acid, 4-[4-anilino-6-[4-(m-carboxyphenylazo)-o-anisidino]-s-triazin-2-ylamino]-4'-(4,6-dianilino-s-triazin-2-ylamino) - 874503-51-2, 2,2'-Stilbenedisulfonic acid, 4-[4-anilino-6-[4-(2-hydroxy-5-sulfophenylazo)-m-anisidino]-s-triazin-2-ylamino]-4'-(4,6-dianilino-s-triazin-2-ylamino) - 874503-63-6, 2,2'-Stilbenedisulfonic acid, 4-[4-[4-(4-acetamido-3-sulfophenylazo)-5-methyl-o-anisidino]-6-anilino-s-triazin-2-ylamino]-4'-(4,6-dianilino-s-triazin-2-ylamino) - 874503-77-2, 2,2'-Stilbenedisulfonic acid, 4-[4-[3-acetamido-4-(4-chloro-3-sulfophenylazo)anilino]-6-anilino-s-triazin-2-ylamino]-4'-(4,6-dianilino-s-triazin-2-ylamino) - 874503-89-6, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-[p-(3-carboxy-4-hydroxyphenylazo)anilino]-6-N-methylanilino-s-triazin-2-ylamino] - 874503-95-4, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-anilino-6-[5-methyl-4-(p-sulfophenylazo)-o-anisidino]-s-triazin-2-ylamino] - 874503-97-6, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-anilino-6-[4-(2-hydroxy-5-sulfophenylazo)-m-anisidino]-s-triazin-2-ylamino] - 874503-99-8, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-[3-acetamido-4-(4-chloro-3-sulfophenylazo)anilino]-6-dimethylamino-s-triazin-2-ylamino] - 874504-01-5, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-[3-acetamido-4-(4-chloro-3-sulfophenylazo)anilino]-6-amino-s-triazin-2-ylamino] - 875235-79-3, 2,2'-Stilbenedisulfonic acid, 4,4'-bis[4-(m-acetamidoanilino)-6-[3-acetamido-4-(4-chloro-3-sulfophenylazo)anilino]-s-triazin-2-ylamino] - (prepn. of)

=> d l36 ibib abs hitstr hitind 1-3

L36 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:539669 HCAPLUS
 DOCUMENT NUMBER: 137:95166
 TITLE: Preparation of 4,4'-bis(triazinylamino)-stilbene-2,2'-disulfonic acid compounds
 INVENTOR(S): Metzger, Georges; Reinehr, Dieter; Sauter, Hanspeter; Dbaly, Helena
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 14 pp.

DOCUMENT TYPE: CODEN: PIXXD2
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 English
 PATENT INFORMATION:

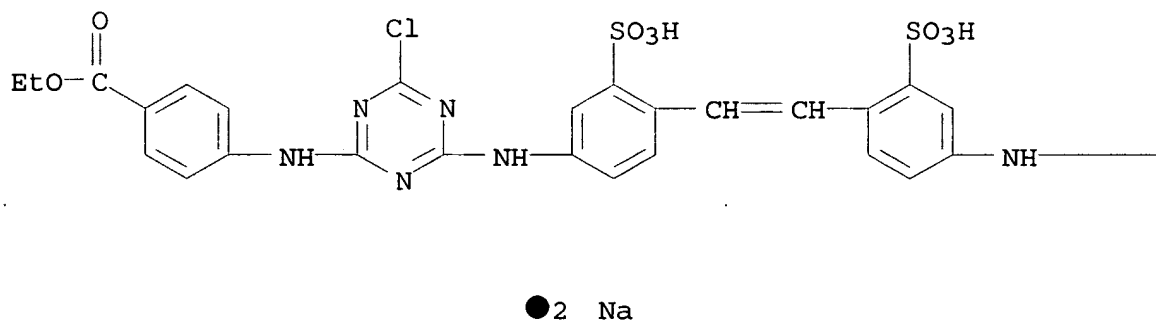
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055509	A1	20020718	WO 2002-EP70	20020107
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1358166	A1	20031105	EP 2002-715396	20020107
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002006398	A	20040210	BR 2002-6398	20020107
JP 2004517139	T2	20040610	JP 2002-556179	20020107
US 2004063706	A1	20040401	US 2003-250843	20030707
PRIORITY APPLN. INFO.:			EP 2001-810028	A
			WO 2002-EP70	W
				20020107

OTHER SOURCE(S): CASREACT 137:95166; MARPAT 137:95166
 GI

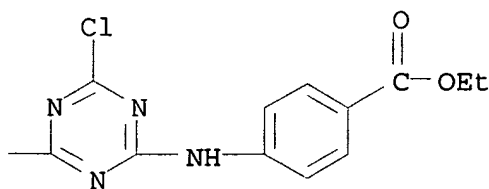
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB 4,4'-Bis(triazinylamino)-stilbene-2,2'-disulfonic acid compd. I (R1 = amino, alkylamino, (un)substituted hydroxyalkylamino, (un)substituted hydroxyalkylalkylamino, cycloalkylamino, arylamino, aralkylamino, morpholino, piperidino, pyrrolidino residue; M = H, Na, Li, K, Ca, Mg, (un)substituted ammonium) is prepd. by reacting a compd. II (R2 = (un)substituted C1-10 alkyl; X = halogen) with ≥ 4 mol amine R1H or its mixt.
- IT 175391-29-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of 4,4'-bis(triazinylamino)-stilbene-2,2'-disulfonic acid compds.)
- RN 175391-29-4 HCAPLUS
- CN Benzoic acid, 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino(6-chloro-1,3,5-triazine-4,2-diyl)imino]]bis-, 1,1'-diethyl ester, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM C07D251-68
- CC 41-10 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 28
- IT 74-89-5, Methylamine, reactions 141-43-5, Ethanolamine, reactions
 175391-29-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of 4,4'-bis(triazinylamino)-stilbene-2,2'-disulfonic acid compds.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L36 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:623017 HCAPLUS
DOCUMENT NUMBER: 125:250378
TITLE: Triazinylstilbene derivatives, their preparation
and use
INVENTOR(S): Reinehr, Dieter; Eckhardt, Claude; Hochberg,
Robert; Kaufmann, Werner; Metzger, Georges
PATENT ASSIGNEE(S): Ciba-Geigy AG, Switz.; Ciba Specialty Chemicals
Holding Inc.
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 728749	A2	19960828	EP 1996-810086	199602 13
EP 728749	A3	19970226		
EP 728749	B1	20030416		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
ES 2194088	T3	20031116	ES 1996-810086	199602 13
GB 2298422	A1	19960904	GB 1996-3289	199602 16
GB 2298422	B2	19970129		
ZA 9601362	A	19960822	ZA 1996-1362	199602 21
AU 9645667	A1	19960829	AU 1996-45667	199602 21
AU 702886	B2	19990311		
US 5744599	A	19980428	US 1996-604536	199602 21
JP 09003052	A2	19970107	JP 1996-34475	199602 22
BR 9600793	A	19971223	BR 1996-793	199602 22

US 6015504

A

20000118

US 1998-13657

199801
26

PRIORITY APPLN. INFO.:

GB 1995-3474

A

199502
22

US 1996-604536

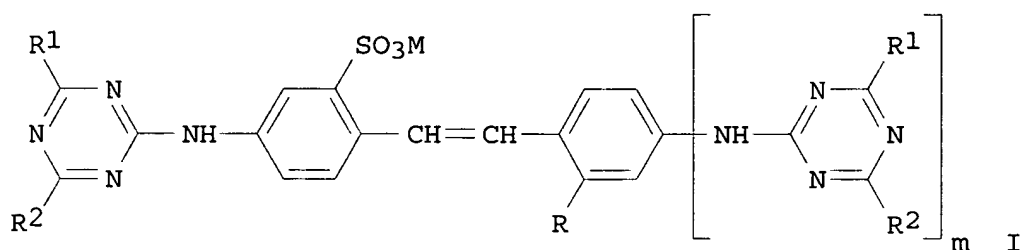
A3

199602
21

OTHER SOURCE(S):

MARPAT 125:250378

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AB The compds., which are useful as UV-absorbing agents and as fluorescent whitening agents and improve the sun protection factor (SPF) of textile fiber material, esp. cotton, polyamide and wool, treated with them, have the structure I [M = H, alkali metal, ammonium, aminium; R = H, SO₃M; R₁ = substituted NHPH; R₂ = H, (un)substituted alkyl or aryl, OH, alkoxy, aryloxy, morpholino, (un)substituted amino; m = 0, 1]. Thus, cyanuric chloride was condensed successively with 4,4'-diaminostilbene-2,2'-disulfonic acid, 4-H₂NC₆H₄CO₂Et, aq. Na₂CO₃, and NH₄OH to give I (M = Na, R = SO₃Na, R₁ = NHC₆H₄CO₂Et-4, R₂ = NH₂, m = 1) (II), λ_{max} 304, 353 nm. Treatment of a cotton fabric with a 0.2% aq. soln. of II increased the SPF from 5.5 to 36.5.

IT 175391-29-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

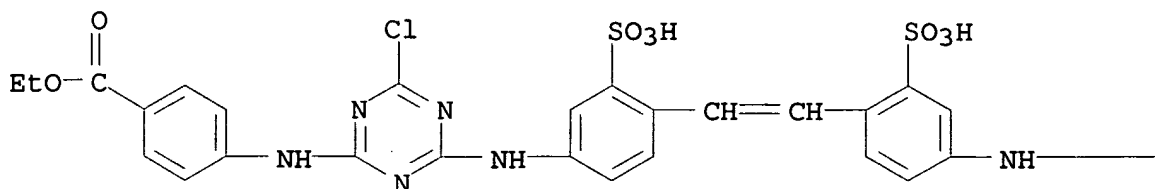
(Preparation); RACT (Reactant or reagent)

(prepn. of triazinyl stilbene derivs. as UV absorbers and fluorescent brighteners)

RN 175391-29-4 HCAPLUS

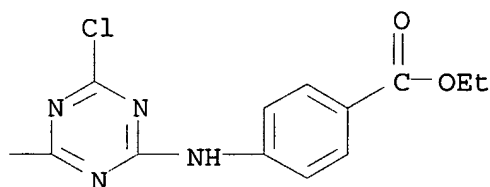
CN Benzoic acid, 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino(6-chloro-1,3,5-triazine-4,2-diyl)imino]]bis-, 1,1'-diethyl ester, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B



IC ICM C07D251-50
 ICS C07D251-54; C07D251-48; D06M013-358; D06L003-12; C11D003-28
 CC 41-10 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 40, 46
 IT 175391-29-4P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (prepn. of triazinyl stilbene derivs. as UV absorbers and
 fluorescent brighteners)

L36 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:228491 HCAPLUS

DOCUMENT NUMBER: 124:289580

TITLE: Preparation of triazole and 2,4-dihydroxybenzophenone derivatives having ultra-violet absorption properties

INVENTOR(S): Bacher, Jean-Pierre; Kaufmann, Werner; Reinehr, Dieter

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 38 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 693483	A1	19960124	EP 1995-810388	199506 12
EP 693483	B1	20020410		
R: BE, CH, DE, FR, GB, IT, LI				
US 5741905	A	19980421	US 1995-471816	199506 06
EP 1170290	A2	20020109	EP 2001-123273	199506 12
EP 1170290	A3	20031105		
EP 1170290	B1	20060607		
R: BE, CH, DE, FR, GB, IT, LI				
AU 9523229	A1	19960208	AU 1995-23229	199506 21
AU 697798	B2	19981015		
ZA 9505166	A	19960123	ZA 1995-5166	199506 22
JP 08041003	A2	19960213	JP 1995-157769	199506 23
GB 2291644	A1	19960131	GB 1995-14407	199507 14
GB 2291644	B2	19980902		
US 6045586	A	20000404	US 1998-9864	199801 22
PRIORITY APPLN. INFO.:			GB 1994-14881	A 199407 23
			GB 1994-17562	A 199409 01
			US 1995-471816	A3 199506 06
			EP 1995-810388	A3 199506 12

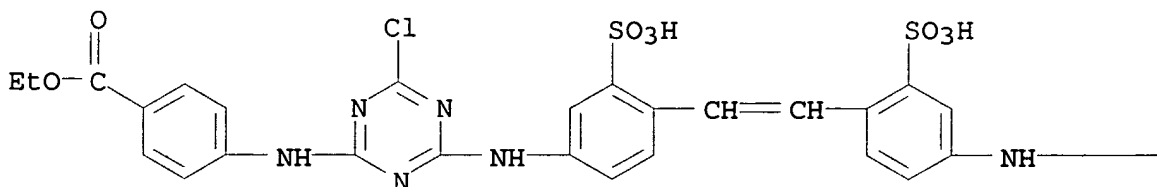
OTHER SOURCE(S): MARPAT 124:289580

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

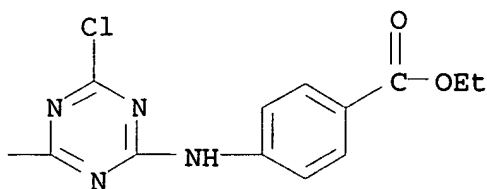
- AB The title compds. A(B-D)_m [m = 1, 2; A = Q (wherein R = PhCO, benzotriazol-2-yl), Q1, Q2, Q3; R1 = Q (wherein R = (un)substituted Ph], glycidyloxy, OCH₂CONHCH₂OH, OCH₂CON(CH₂OH)₂; X = F, Cl, NHCH₂OH; X1 = F, Cl, NHCH₂OH, Q4; wherein B = O, NH, SO₂; R2 = alkoxy carbonyl, alkanoyl, SO₃M, SO₂CH₂CH₂OSO₃M, etc.; M = H, Na, K, Ca, Mg, NH₄, mono-, di-, tri-, or tetraalkylammonium that is di- or tri-substituted by a mixt. of C1-4 alkyl and C1-4 hydroxyalkyl group, or when A is a residue of formula Q1 or Q2; D = glycidyl, CH₂CONHCH₂OH, CH₂CON(CH₂OH)₂, or CH₂CH₂OSO₃M, or when A = Q1 or Q2, D = Q4 (wherein R2 = alkoxy carbonyl, SO₃M, SO₂CH₂CH₂OSO₃M), Q5 (wherein n = 0,1), Q6 (wherein X, X1, M = same as above)], which are useful as UV absorbing agents and to a method of improving the sun protection of textile fiber material, are prepd. Thus, 13.1 g 2-(2,4-dihydroxyphenyl)-4,6-diphenyl-1,3,5-triazine was stirred with 7.3 g K₂CO₃ and 100 mL epichlorohydrin over 5 h at 110° to give, after workup, the title compd. (I) in 88.1% yield. A bleached cotton cretonne was treated with an aq. soln. contg. 2 g/L 40% AcOH and 250 g/L I, dried, and thermofixed at 170° to give a fabric with sun protection factor (SPF) 41.
- IT 175391-29-4P
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (prepn. of triazole and dihydroxybenzophenone derivs. as
 ultra-violet absorbers for sun protection of textiles)
- RN 175391-29-4 HCAPLUS
- CN Benzoic acid, 4,4'-[1,2-ethenediylbis[(3-sulfo-4,1-phenylene)imino(6-chloro-1,3,5-triazine-4,2-diyl)imino]]bis-, 1,1'-diethyl ester, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B



IC ICM C07D251-24
 ICS D06M013-00; C07D405-12; C07D251-70; C07D251-44; C07D251-50;
 C07D403-12; C07D403-14; C07D251-42
 CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))
 IT 26464-76-6P 138968-60-2P 140613-28-1P 175391-13-6P
 175391-14-7P 175391-15-8P 175391-16-9P 175391-17-0P
 175391-18-1P 175391-19-2P 175391-20-5P 175391-21-6P
 175391-22-7P 175391-23-8P 175391-24-9P 175391-25-0P
 175391-26-1P 175391-27-2P 175391-28-3P 175391-29-4P
 175391-30-7P 175391-31-8P 175391-32-9P 175391-33-0P
 175391-34-1P 175391-35-2P 175391-36-3P 175391-37-4P
 175391-38-5P 175391-39-6P 175391-40-9P
 RL: MOA (Modifier or additive use); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (prepn. of triazole and dihydroxybenzophenone derivs. as
 ultra-violet absorbers for sun protection of textiles)

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FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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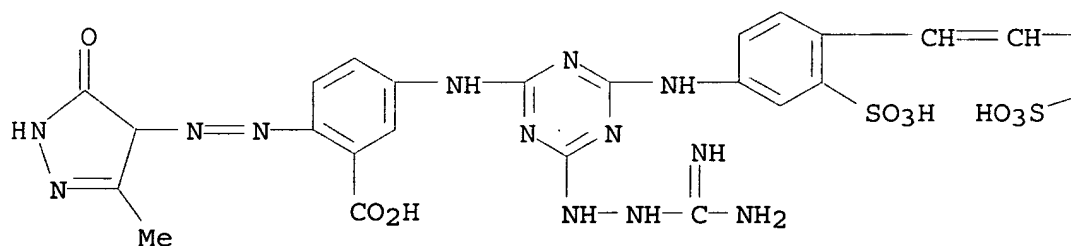
=> d 139 iall hitstr 1-2

L39 ANSWER 1 OF 2 CAOLD COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: CA51:6173e CAOLD
 TITLE: dianthrone ethylene derivs. contg. Br
 AUTHOR NAME: Schwamberger, Emil
 PATENT ASSIGNEE: Cassella Farbwerke Mainkur Akt.-Ges.
 DOCUMENT TYPE: Patent
 TITLE: dyes (triazine) for cotton contg. carbamoyl hydrazide
 and its imido and thio analogs
 PATENT ASSIGNEE: General Aniline & Film Corp.
 DOCUMENT TYPE: Patent
 TITLE: triazine dyes for cotton contg. carbamoyl hydrazide
 and its imido and thio analogs
 AUTHOR NAME: Strobels, Albert F.; Williams, W. W.
 DOCUMENT TYPE: Patent

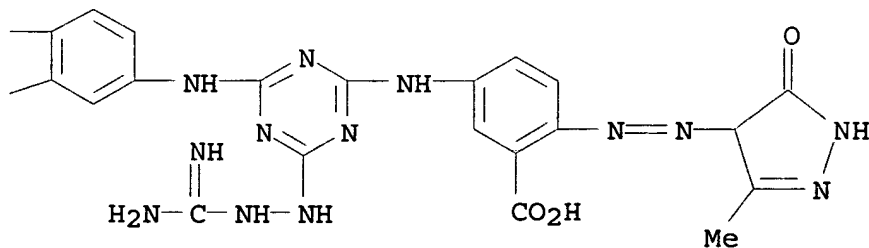
	PATENT NO.	KIND	DATE
PI	US 2768158		1956
PI	US 2782209		1957
INDEX TERM:	81-11-8	108-26-9	616-79-5 108726-46-1
	108924-43-2	109129-48-8	120856-77-1
	128974-41-4		

IT 108924-43-2
 RN 108924-43-2 CAOLD
 CN Benzoic acid, 3,3'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino]]bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)]- (6CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L39 ANSWER 2 OF 2 CAOLD COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: CA51:2299e CAOLD

TITLE: dyes (triazine) for cotton contg. carbamoyl hydrazide
and its imido and thio analogs

PATENT ASSIGNEE: General Aniline & Film Corp.

DOCUMENT TYPE: Patent

PATENT NO. KIND DATE

PI GB 751997

INDEX TERM: 81-11-8 108-26-9 616-79-5 108726-46-1

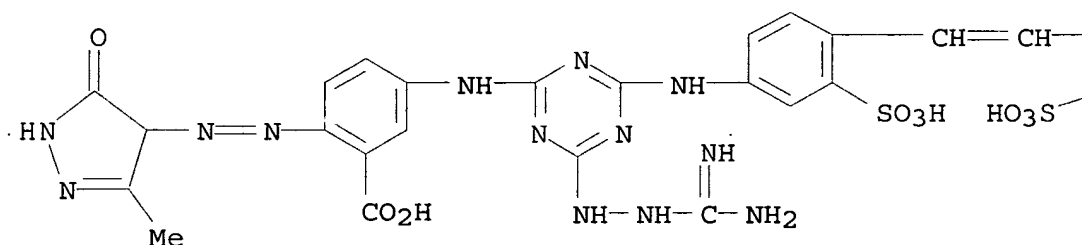
108924-43-2 109129-48-8

IT 108924-43-2

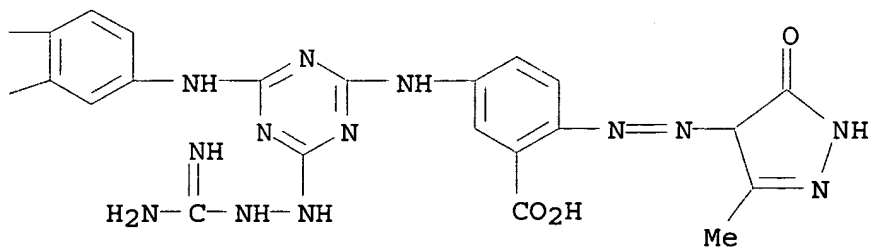
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CN Benzoic acid, 3,3'-[vinylenebis[(3-sulfo-p-phenylene)imino[6-(2-amidinohydrazino)-s-triazine-2,4-diyl]imino]]bis[6-(3-methyl-5-oxo-2-pyrazolin-4-ylazo)]- (6CI) (CA INDEX NAME)

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